Signature 2.0
Processor/Tuner
Dolby Digital / DTS

Service - Technical Manual

Signature 2.0 Processor/Tuner Specifications

Inputs:

Analog Audio:	Six Stereo pairs via RCA jacks
Digital Audio:	Four Coaxial S/P-DIF, Two Optical TosLink
External Adapter:	Six Direct Analog channels via RCA jacks
Composite Video:	Six RCA jacks
S-Video:	Two 4-pin mini DIN
IR Sensor Input:	3.5mm mono mini-plug

Outputs:

Main Audio:	Six Analog Outputs via RCA jacks (left, center, right, right surround, left surround, subwoofer)
Main Video:	One Composite RCA jack output paralleled with one S-Video 4-pin mini DIN
Record Audio:	Two pair (paralleled) analog via RCA jacks
Record Video:	One Composite via RCA jack paired with one S-Video via 4-pin mini DIN
IR Sensor:	Loop-through output via 3.5mm mono mini plug
Accessory Trigger:	6 – 12 volt DC via 3.5mm mono mini plug, tip positive, 150mA maximum.

Surround Modes:

Analog:	Dolby Pro Logic, Four Movie Modes, Four Music Modes, Stereo, Mono, Mono +
Digital:	Dolby Digital, Dolby Digital Late Night, Dolby Digital Pro Logic, Dolby Digital Mono, DTS 5.1, DTS 4-Channel, DTS 2-Channel, Stereo, Mono +

Preamplifier:

Frequency Response:	Front Channels (Analog Stereo): 20Hz to 50kz, ± 0.5dB Center and Surround Channels: 20Hz to 30kHz, ± 1dB Subwoofer Channel: 10Hz to 100Hz, ± 1dB
THD + N:	0.03%, 20Hz to 20kHz
S/N Ratio:	>–87dBr, 20Hz to 20kHz
Crosstalk:	<60dB
Input Impedance:	Audio: >10KΩ Video: 75Ω
Output Impedance:	Audio: 300Ω Video: 75Ω
Crossovers:	Low Pass: 3 Pole (18dB/Octave) @ 100Hz High Pass: 3 Pole (18dB/Octave) @ 100Hz
Tone Controls:	Treble Cut: –0dB to –8dB in 2dB steps @ 10kHz shelving Bass Boost: +0dB to +8dB in 2 steps @ 50Hz
Video Standards:	NTSC, PAL

Signature 2.0 Processor/Tuner Specifications (continued)

Tuner Section FM:

Frequency Range:	87.5 to 108.0MHz in 200kHz steps
Usable Sensitivity:	<1.0 µV/11.2dBf
Signal-To-Noise:	70dB (Stereo, A-weighted)
S/N 50dB Sensitivity:	<45dBf
THD + N:	<0.5%
Capture Ratio:	<2.5dB
AM Suppression:	>50dB
Image Rejection:	>70dB (@ 106MHz)
IF Rejection:	>85dB
Effective Selectivity:	>50dB (±400kHz)
Stereo Separation:	>40dB (1kHz)
RDS Modes:	Station ID, Program Type, Radio Text Data, Program Type Search

Tuner Section AM:

Frequency Range:	520 – 1710 kHz in 10kHz steps
Signal-To-Noise Ratio:	>40dB
Usable Sensitivity:	≤500µV/M
Selectivity:	≥30dB (±10kHz)

General:

Power Requirement:	AC 115V/60Hz
Power Consumption:	5.5W Idle, 75W Maximum
Dimensions:	(Max, including knobs, jacks, buttons)
	Width: 17 3/8 inches (441mm)
	Height: 4 1/8 inches (105mm)
	Depth: 15 3/8 inches (395mm)
Weight:	22 lbs. (10.5 kg)

All features and specifications are subject to change without notice.

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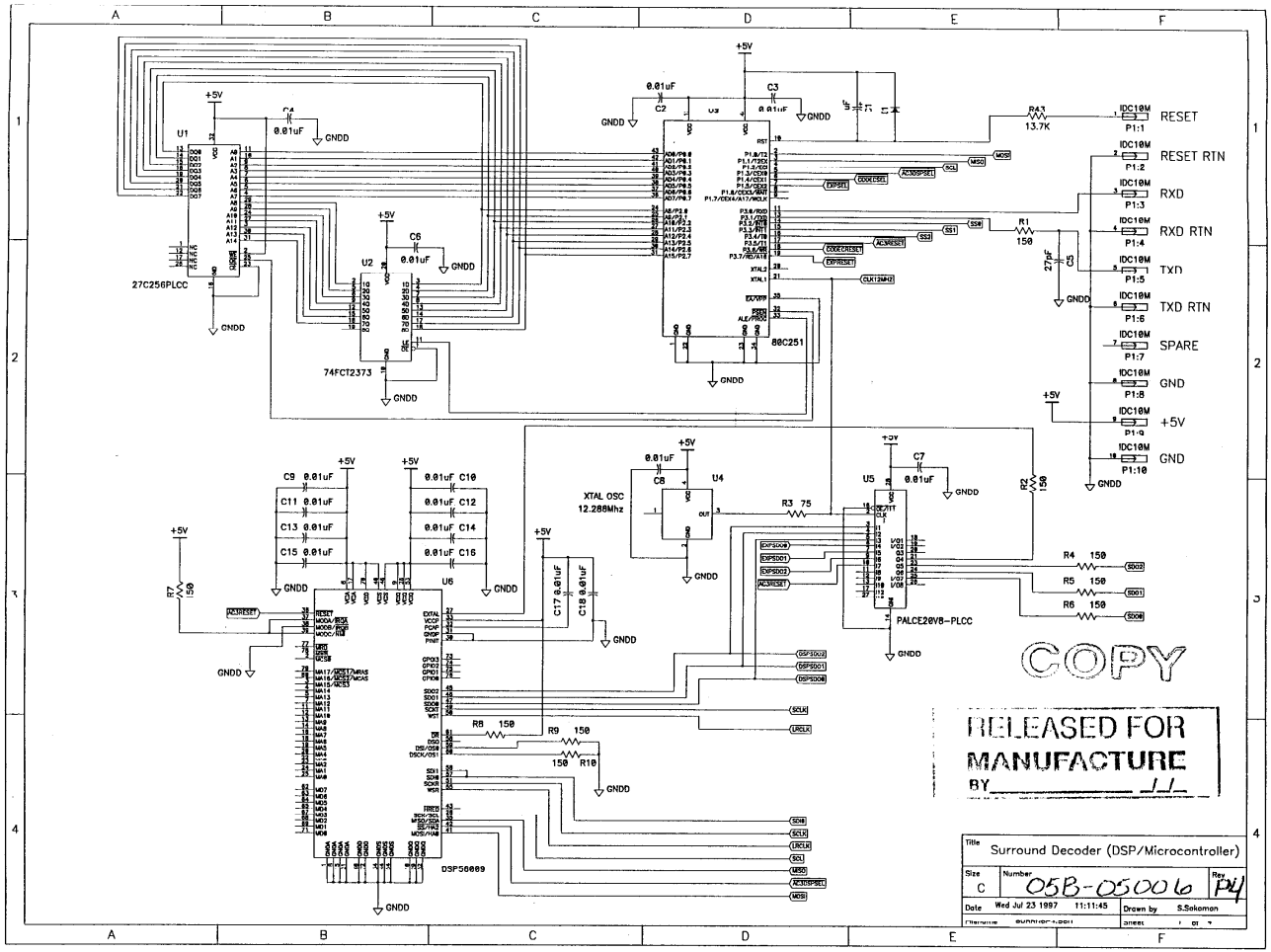
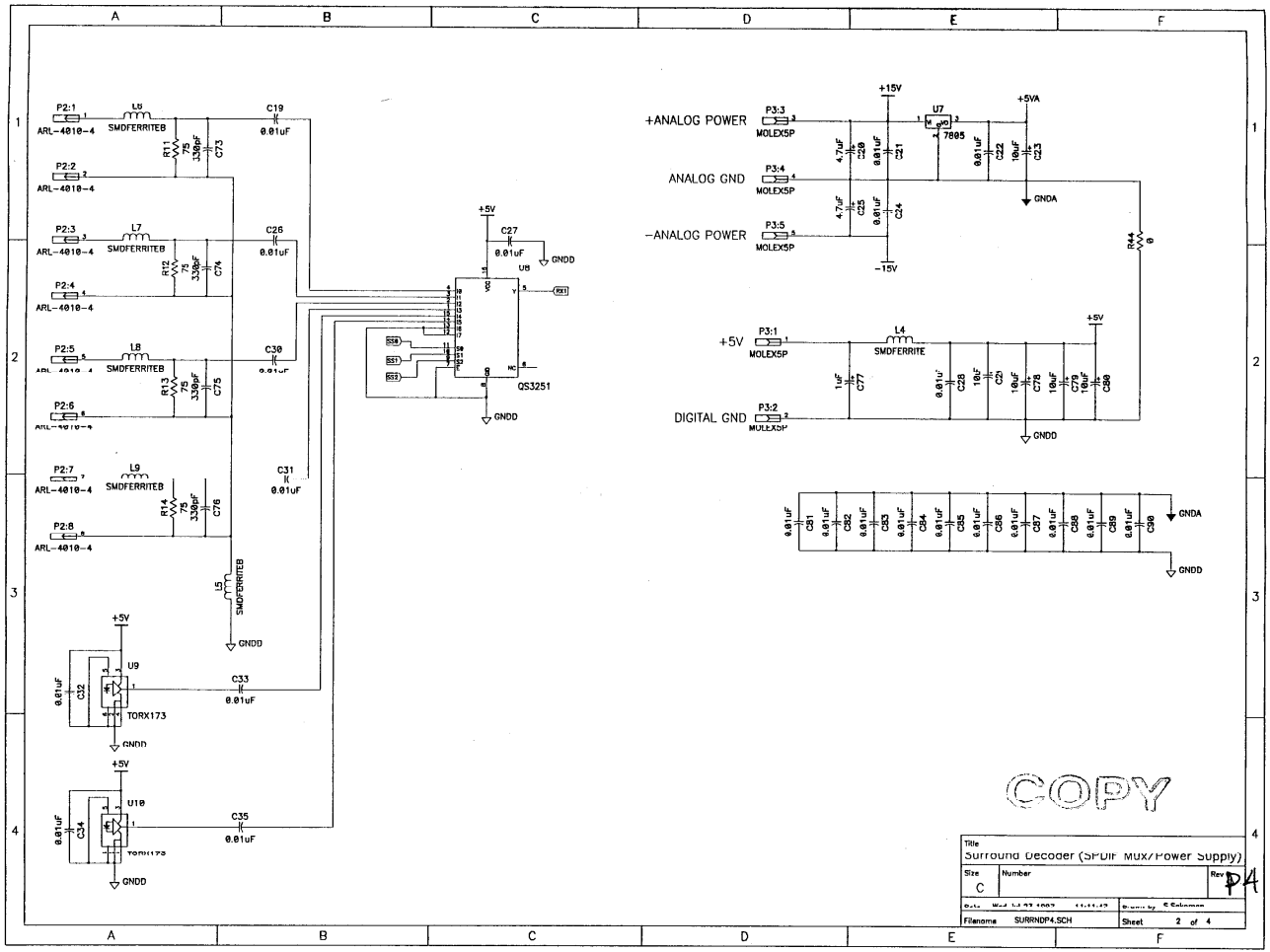
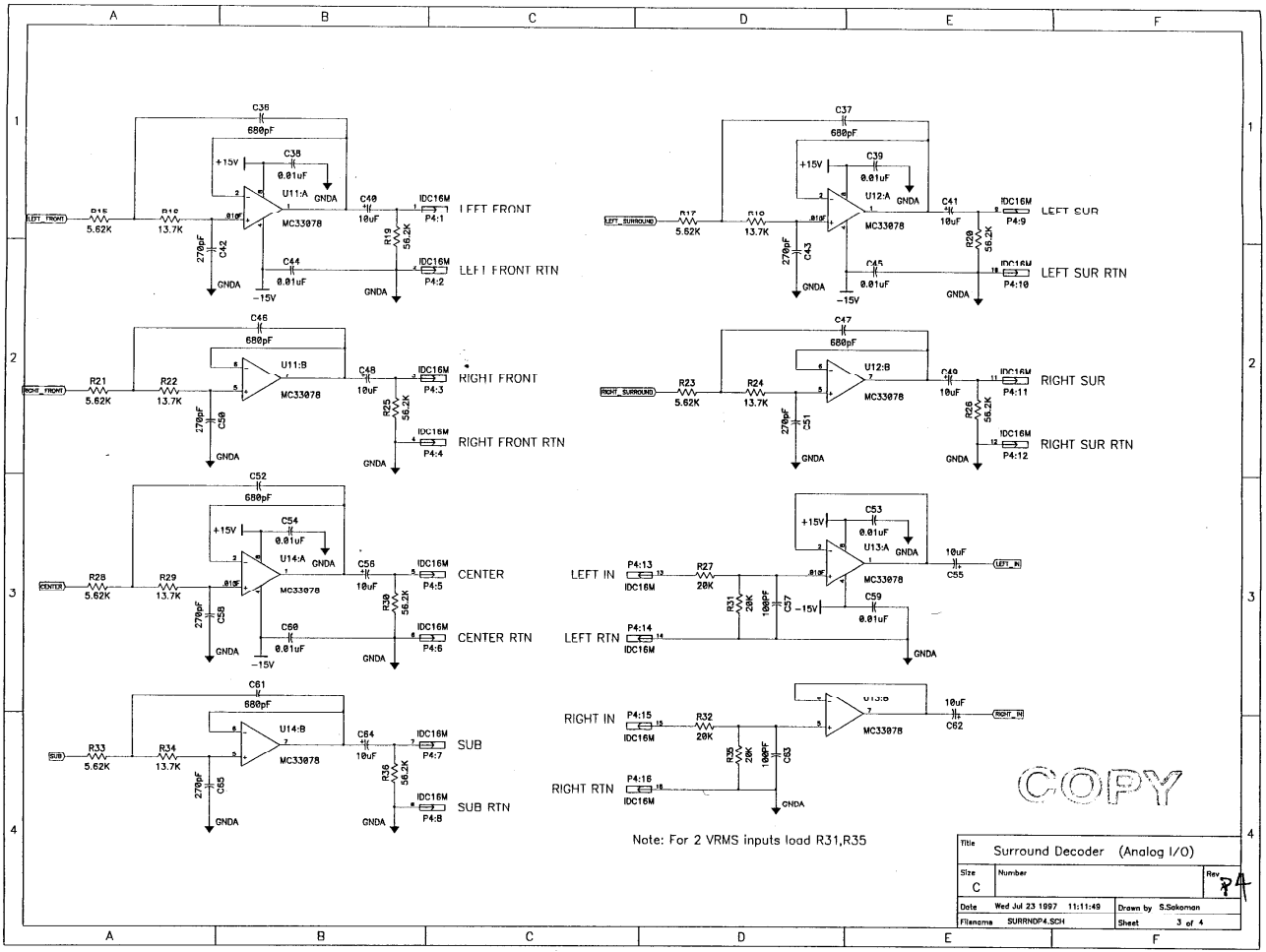
†DTS and DTS Surround are trademarks of Digital Theater Systems.


U1
27C256PLCC
U2
74FCT2373
80C251
U3
U4
XTAL OSC
12.288Mhz
U5
PALCE20V8-PLCC
U6
DSP56009
+5V
GNDD
0.01uF
C1
C2
C3
C4
C5
C6
C7
C8
C9
C10
C11
C12
C13
C14
C15
C16
C17
C18
R1 150
R2 150
R3 75
R4 150
R5 150
R6 150
R7 150
R8 150
R9 150
R10 150
R43 13.7K
27pF
IDC10M P1:1 RESET
IDC10M P1:2 RESET RTN
IDC10M P1:3 RXD
IDC10M P1:4 RXD RTN
IDC10M P1:5 TXD
IDC10M P1:6 TXD RTN
IDC10M P1:7 SPARE
IDC10M P1:8 GND
IDC10M P1:9 +5V
IDC10M P1:10 GND
RESET
RESET RTN
RXD
RXD RTN
TXD
TXD RTN
SPARE
GND
+5V
GND
COPY
RELEASED FOR MANUFACTURE
BY
Title Surround Decoder (DSP/Microcontroller)
Size C
Number 05B-050006
Rev P4
Date Wed Jul 23 1997 11:11:45
Drawn by S.Sakoman
Sheet


P2:1
ARL-4010-4
L6
SMDFERRITEB
C19
0.01uF
R11
75
330pF
C73
P2:2
P2:3
L7
C26
R12
C74
P2:4
P2:5
L8
C30
R13
C75
P2:6
P2:7
L9
C31
R14
C76
P2:8
L5
+5V
GNDD
U9
C32
C33
TORX173
U10
C34
C35
C27
U8
QS3251
+15V
+ANALOG POWER
P3:3
MOLEX5P
ANALOG GND
P3:4
-ANALOG POWER
P3:5
U7
7805
+5VA
GNDA
R44
-15V
+5V
P3:1
L4
SMDFERRITE
DIGITAL GND
P3:2
C77
C78
C79
C80
C81
C82
C83
C84
C85
C86
C87
C88
C89
C90
COPY
Title
Surround Decoder (SPDIF MUX/Power Supply)
Size
C
Number
Rev
D4
Filename
SURRNDP4.SCH
Sheet
2 of 4


LEFT FRONT
LEFT FRONT RTN
LEFT SUR
LEFT SUR RTN
RIGHT FRONT
RIGHT FRONT RTN
RIGHT SUR
RIGHT SUR RTN
CENTER
CENTER RTN
SUB
SUB RTN
LEFT IN
LEFT RTN
RIGHT IN
RIGHT RTN
+15V
-15V
GNDA
MC33078
IDC16M
COPY
Note: For 2 VRMS inputs load R31,R35
Title
Surround Decoder (Analog I/O)
Size
C
Number
Rev
A
Date
Wed Jul 23 1997 11:11:49
Drawn by
S.Sakoman
Filename
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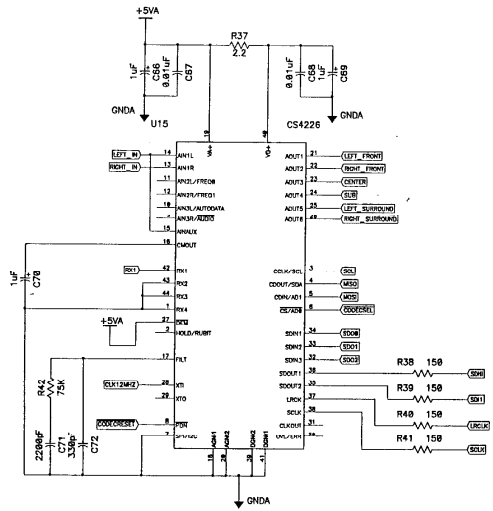
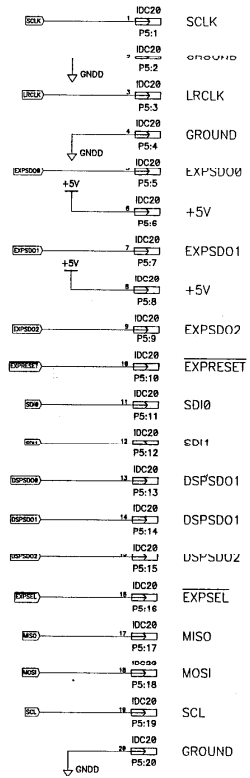
3 of 4





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FIDUCIAL FIDUCIAL FIDUCIAL

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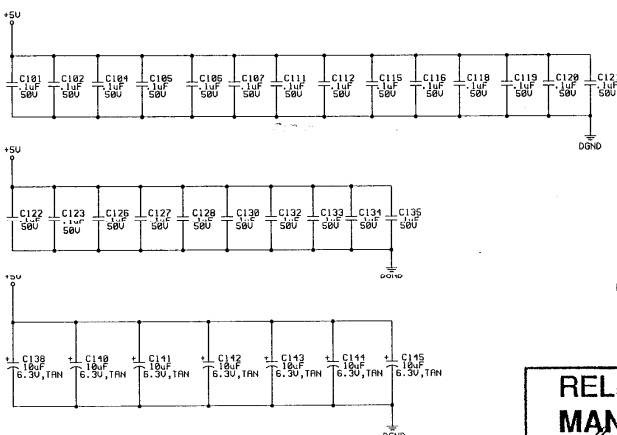
Size	C	Number	Rev
Date	Wed Jul 23 1997 11:11:50	Drawn by	S.Sakoman
Filename	SURRNDP4.SCH	Sheet	4 of 4

NOTES:

1. FOR CAPACITOR TYPE SEE PARTS LIST.
2. ALL RESISTORS ARE 1/8W, 5% CARBON FILM, UNLESS OTHERWISE SPECIFIED.



COPY

RELEASED FOR MANUFACTURE
BY Bruce Mahta 6/17/97

SIGNATURE		DATE
DRAWN	DJ CLARK	10 17 96
DRFTG CHK		
PROJ MGR		
S2CPU00.SCH		

harman consumer group
digital entertainment product center
1308 Borregas Avenue
Sunnyvale, CA 94089-1001

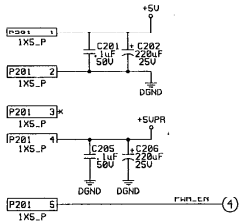
SIGNATURE 2.0
CPU

DWG. NO. 05A-05006 REV. 00

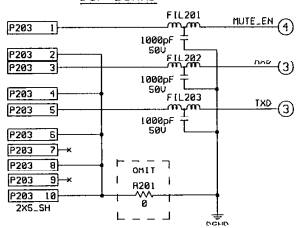
SHEET 1 OF 5

SIGNATURE 2.0 6-18-97 10:10 AM

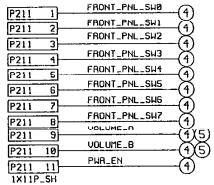
POWER CONNECTOR



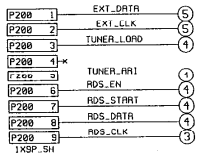
DSP BOARD



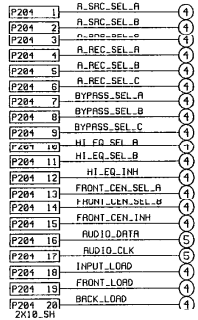
FRONT PANEL BOARD



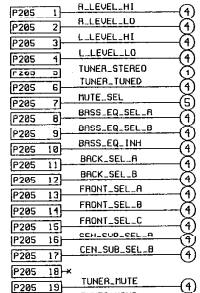
TUNER BOARD



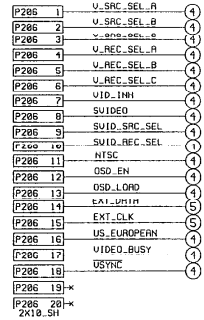
AUDIO I/O CONN 1



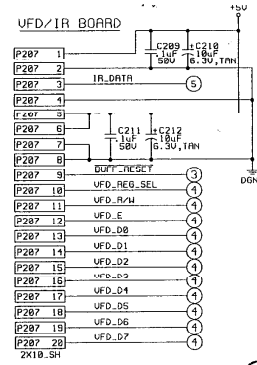
AUDIO I/O CONN 2



VIDEO BOARD



VFD/IR BOARD



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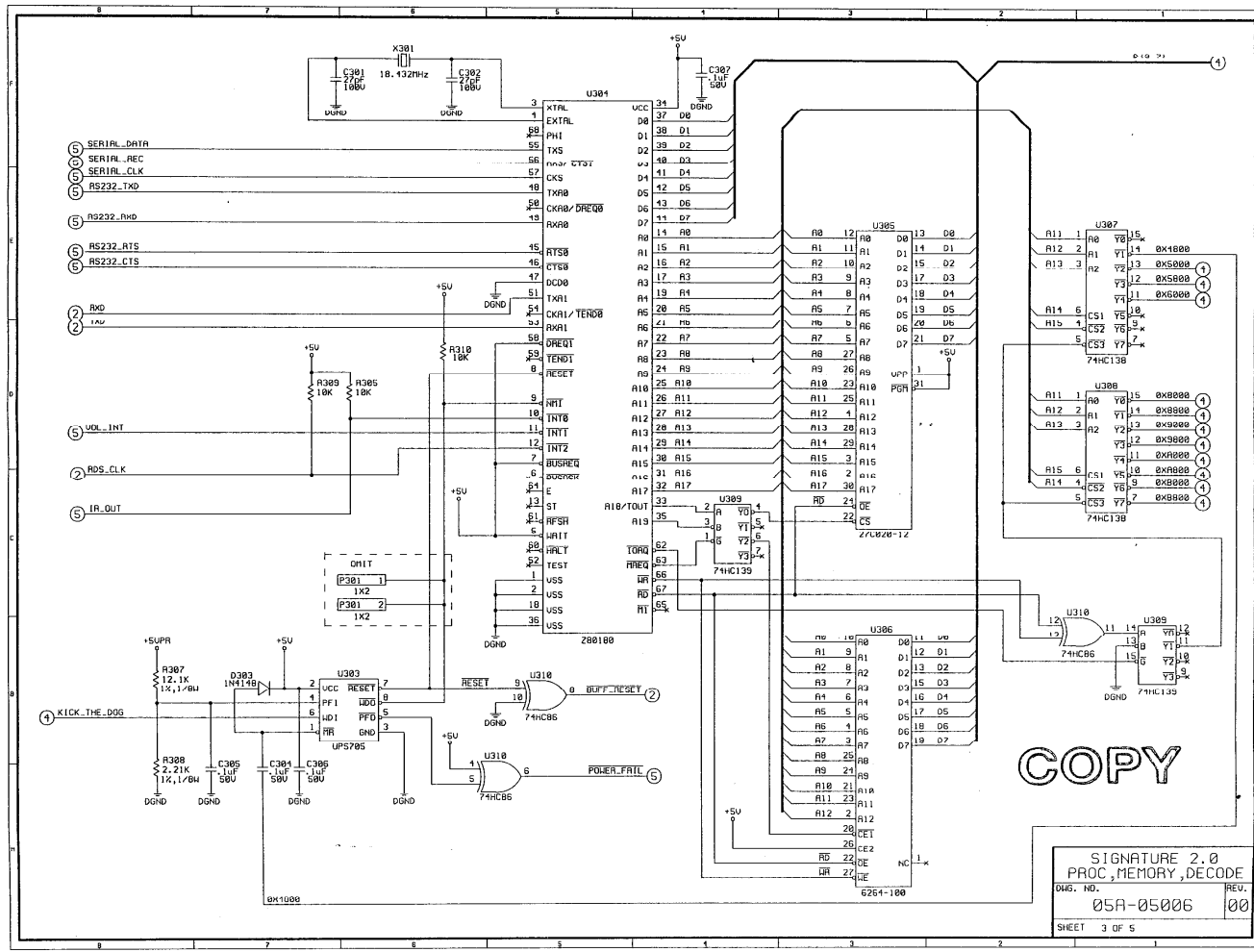
X301
18.432MHz
C301 22pF 100V
C302 22pF 100V
C307 1uF 50V
U304
SERIAL_DATA
SERIAL_REC
SERIAL_CLK
RS232_TXD
RS232_RXD
RS232_RTS
RS232_CTS
RXD
TXD
R310 10K
R309 10K
R305 10K
VOL_INT
RDS_CLK
IR_OUT
OMIT
P301 1X2
P301 1X2
U305
U306
U307
U308
U309
U310
74HC138
74HC139
74HC86
27C020-12
6264-100
R307 12.1K 1%,1/8W
D303 1N4148
U303
UPS705
KICK_THE_DOG
R308 2.21K 1%,1/8W
C305 .1uF 50V
C304 .1uF 50V
C306 .1uF 50V
RESET
BUFF_RESET
POWER_FAIL
0X1000
0X4000
0X5000
0X6000
0X8000
0X9000
0XA000
0XB000
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DWG. NO. 05A-05006
REV. 00
SHEET 3 OF 5
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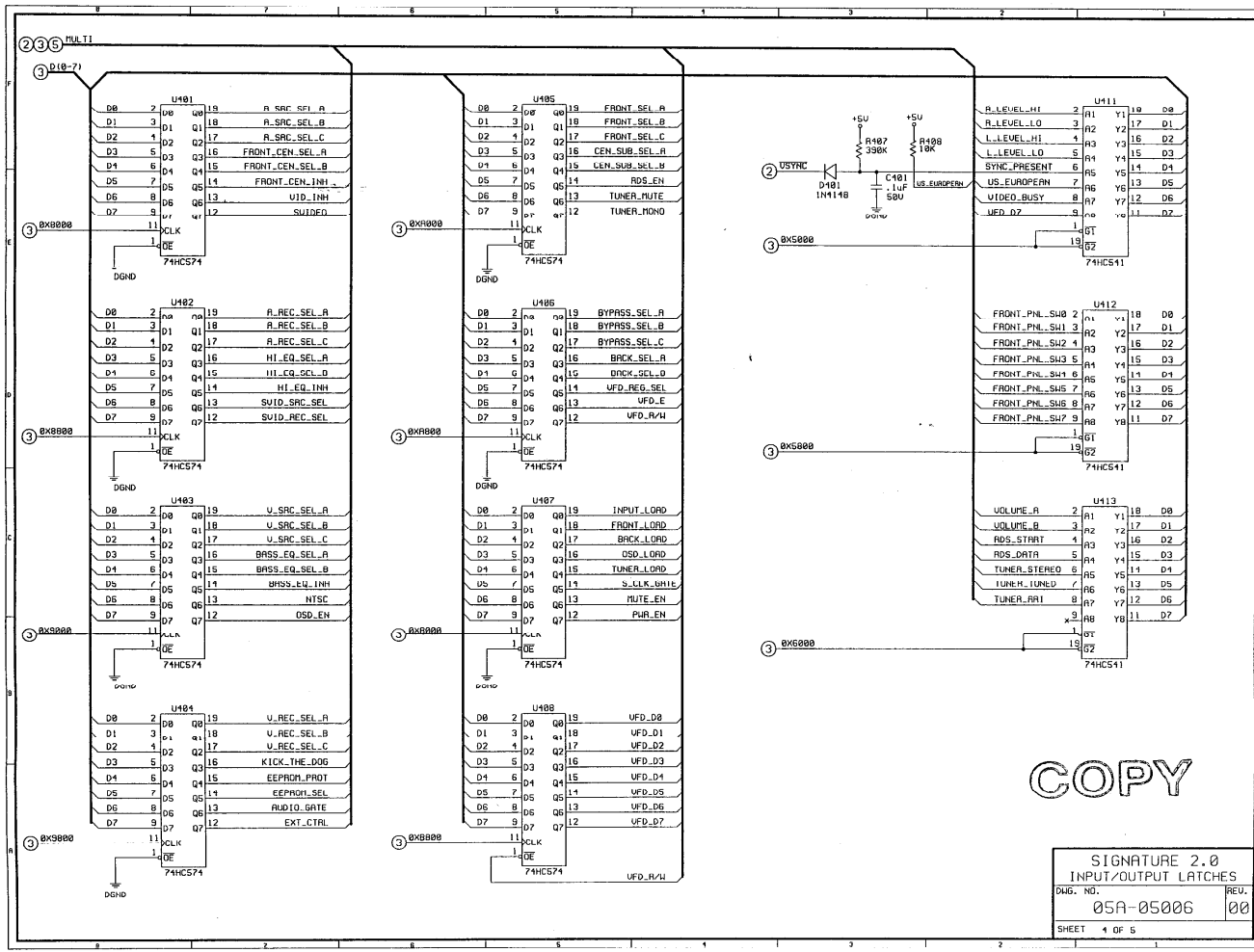
MULTI
D(0-7)
U401
A_SRC_SEL_A
A_SRC_SEL_B
A_SRC_SEL_C
FRONT_CEN_SEL_A
FRONT_CEN_SEL_B
FRONT_CEN_INH
VID_INH
SVIDEO
0X8000
U402
A_REC_SEL_A
A_REC_SEL_B
A_REC_SEL_C
HI_EQ_SEL_A
HI_EQ_SEL_B
HI_EQ_INH
SVID_SRC_SEL
SVID_REC_SEL
0X8800
U403
V_SRC_SEL_A
V_SRC_SEL_B
V_SRC_SEL_C
BASS_EQ_SEL_A
BASS_EQ_SEL_B
BASS_EQ_INH
NTSC
OSD_EN
0X9000
U404
V_REC_SEL_A
V_REC_SEL_B
V_REC_SEL_C
KICK_THE_DOG
EEPROM_PROT
EEPROM_SEL
AUDIO_GATE
EXT_CTRL
0X9800
74HCS74
DGND
U405
FRONT_SEL_A
FRONT_SEL_B
FRONT_SEL_C
CEN_SUB_SEL_A
CEN_SUB_SEL_B
RDS_EN
TUNER_MUTE
TUNER_MONO
0XA000
U406
BYPASS_SEL_A
BYPASS_SEL_B
BYPASS_SEL_C
BACK_SEL_A
BACK_SEL_B
VFD_REG_SEL
VFD_E
VFD_R/W
0XA800
U407
INPUT_LOAD
FRONT_LOAD
BACK_LOAD
OSD_LOAD
TUNER_LOAD
S_CLK_ENBLE
MUTE_EN
PWR_EN
0XB000
U408
VFD_D0
VFD_D1
VFD_D2
VFD_D3
VFD_D4
VFD_D5
VFD_D6
VFD_D7
0XB800
VFD_R/W
+5V
R407
330K
R408
10K
VSYNC
D401
1N4148
C401
.1uF
50V
VS_EUROPEAN
U411
A_LEVEL_HI
A_LEVEL_LO
L_LEVEL_HI
L_LEVEL_LO
SYNC_PRESENT
VS_EUROPEAN
VIDEO_BUSY
VFD_D7
0X5000
74HCS41
U412
FRONT_PNL_SW0
FRONT_PNL_SW1
FRONT_PNL_SW2
FRONT_PNL_SW3
FRONT_PNL_SW4
FRONT_PNL_SW5
FRONT_PNL_SW6
FRONT_PNL_SW7
0X5800
U413
VOLUME_A
VOLUME_B
RDS_START
RDS_DATA
TUNER_STEREO
TUNER_TUNED
TUNER_AM1
0X6000
COPY
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INPUT/OUTPUT LATCHES
DWG. NO.
05A-05006
REV.
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SHEET 4 OF 5
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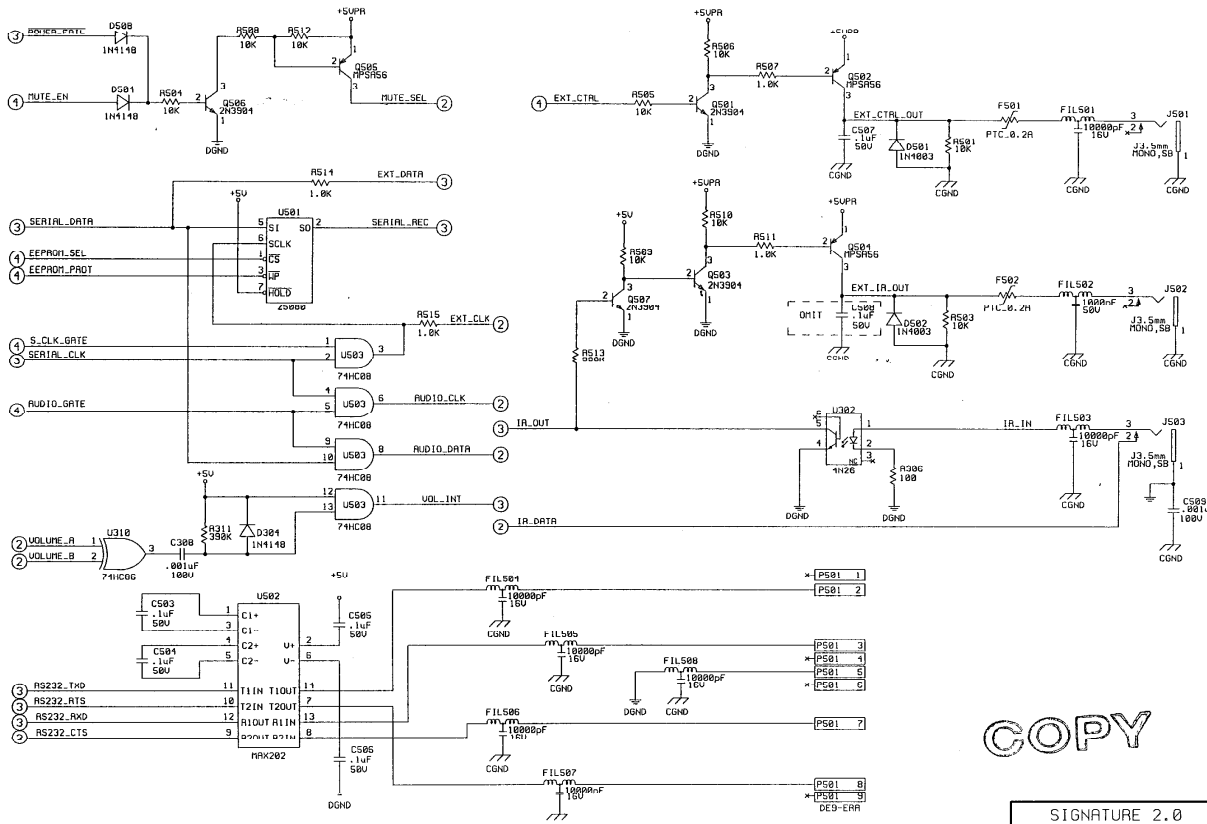

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SHEET 5 OF 5	

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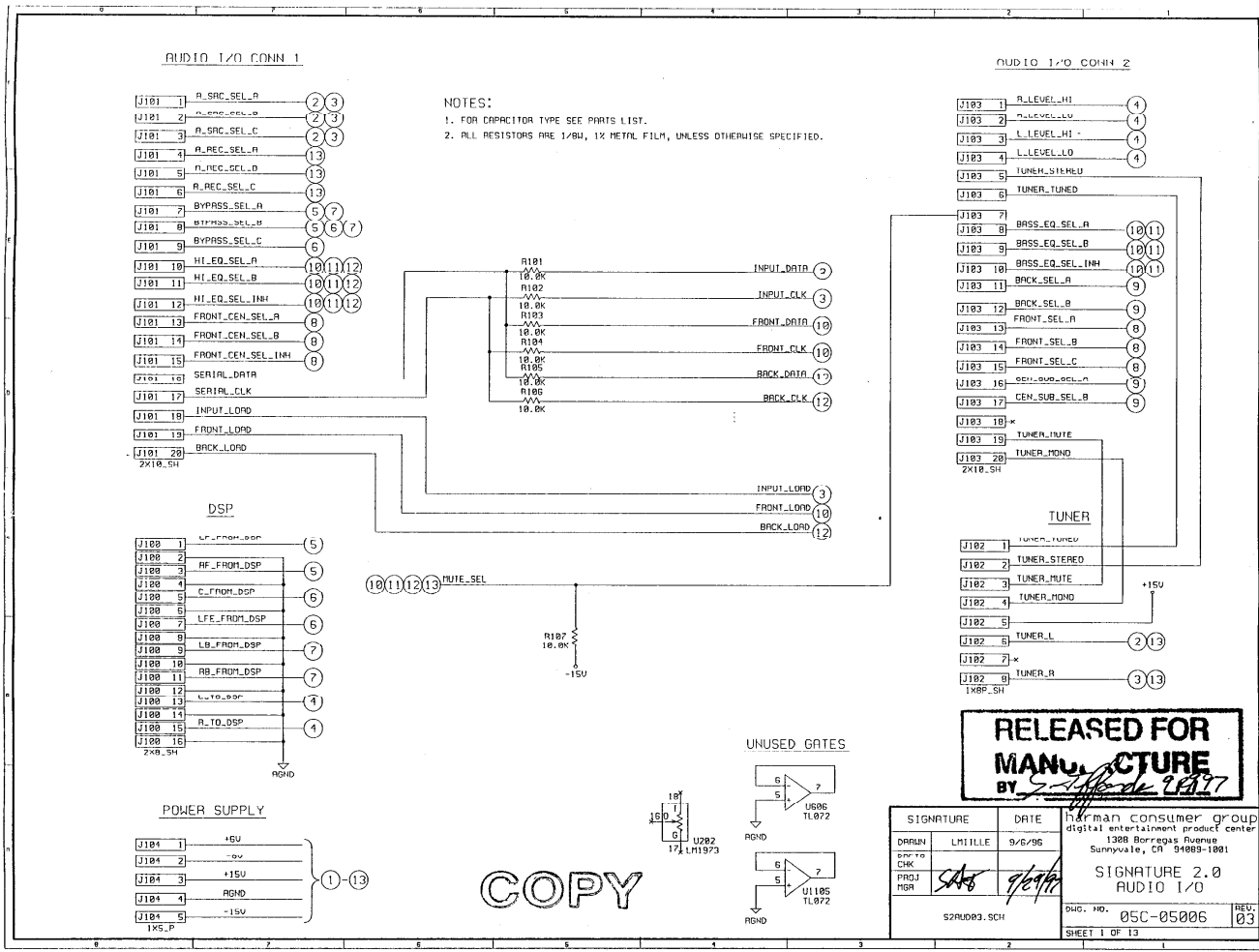
AUDIO I/O CONN 1
J101 1 A_SRC_SEL_A
J101 2 A_SRC_SEL_B
J101 3 A_SRC_SEL_C
J101 4 A_REC_SEL_A
J101 5 A_REC_SEL_B
J101 6 A_REC_SEL_C
J101 7 BYPASS_SEL_A
J101 8 BYPASS_SEL_B
J101 9 BYPASS_SEL_C
J101 10 HI_EQ_SEL_A
J101 11 HI_EQ_SEL_B
J101 12 HI_EQ_SEL_INH
J101 13 FRONT_CEN_SEL_A
J101 14 FRONT_CEN_SEL_B
J101 15 FRONT_CEN_SEL_INH
J101 16 SERIAL_DATA
J101 17 SERIAL_CLK
J101 18 INPUT_LOAD
J101 19 FRONT_LOAD
J101 20 BACK_LOAD
2X10_SH
NOTES:
1. FOR CAPACITOR TYPE SEE PARTS LIST.
2. ALL RESISTORS ARE 1/8W, 1% METAL FILM, UNLESS OTHERWISE SPECIFIED.
R101 10.0K INPUT_DATA
R102 10.0K INPUT_CLK
R103 10.0K FRONT_DATA
R104 10.0K FRONT_CLK
R105 10.0K BACK_DATA
R106 10.0K BACK_CLK
INPUT_LOAD
FRONT_LOAD
BACK_LOAD
MUTE_SEL
R107 10.0K -15V
AUDIO I/O CONN 2
J103 1 A_LEVEL_HI
J103 2 A_LEVEL_LO
J103 3 L_LEVEL_HI
J103 4 L_LEVEL_LO
J103 5 TUNER_STEREO
J103 6 TUNER_TUNED
J103 7
J103 8 BASS_EQ_SEL_A
J103 9 BASS_EQ_SEL_B
J103 10 BASS_EQ_SEL_INH
J103 11 BACK_SEL_A
J103 12 BACK_SEL_B
J103 13 FRONT_SEL_A
J103 14 FRONT_SEL_B
J103 15 FRONT_SEL_C
J103 16 CEN_SUB_SEL_A
J103 17 CEN_SUB_SEL_B
J103 18
J103 19 TUNER_MUTE
J103 20 TUNER_MONO
2X10_SH
DSP
J100 1 LF_FROM_DSP
J100 2
J100 3 RF_FROM_DSP
J100 4
J100 5 C_FROM_DSP
J100 6
J100 7 LFE_FROM_DSP
J100 8
J100 9 LB_FROM_DSP
J100 10
J100 11 RB_FROM_DSP
J100 12 L_TO_DSP
J100 13
J100 14 R_TO_DSP
J100 15
J100 16
2X8_SH
AGND
TUNER
J102 1 TUNER_TUNED
J102 2 TUNER_STEREO
J102 3 TUNER_MUTE
J102 4 TUNER_MONO
J102 5 +15V
J102 6 TUNER_L
J102 7
J102 8 TUNER_R
1X8P_SH
POWER SUPPLY
J104 1 +6V
J104 2 -6V
J104 3 +15V
J104 4 AGND
J104 5 -15V
1X5_P
U202 LM1973
UNUSED GATES
U606 TL072
U1105 TL072
AGND
COPY
RELEASED FOR MANUFACTURE
BY 9/8/97
SIGNATURE DATE
DRAWN LMILLE 9/6/96
CHKD CHK
PROJ MGR
S2AUD03.SCH
harman consumer group
digital entertainment product center
1308 Borregas Avenue
Sunnyvale, CA 94089-1001
SIGNATURE 2.0 AUDIO I/O
DWG. NO. 05C-05006
REV. 03
SHEET 1 OF 13
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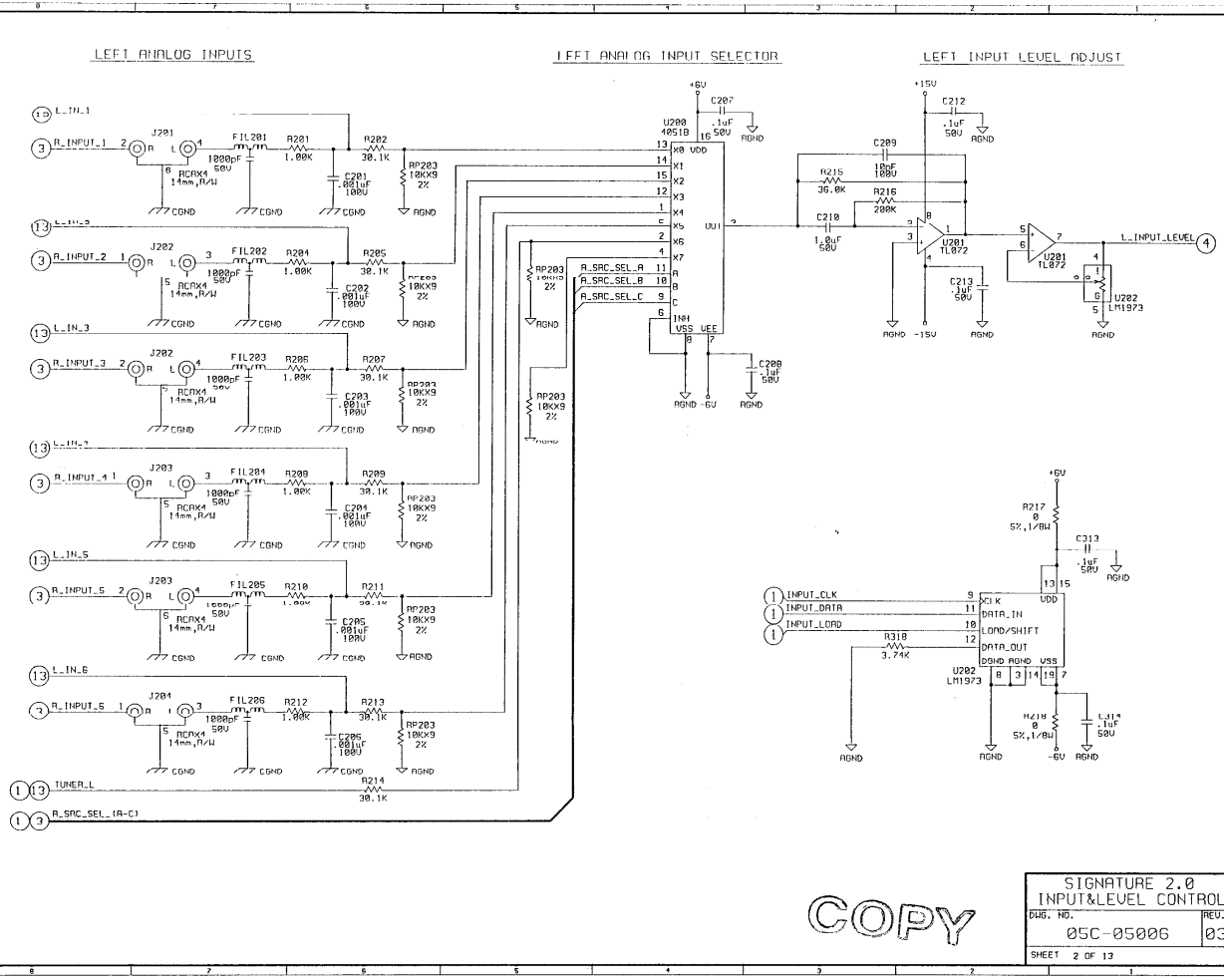

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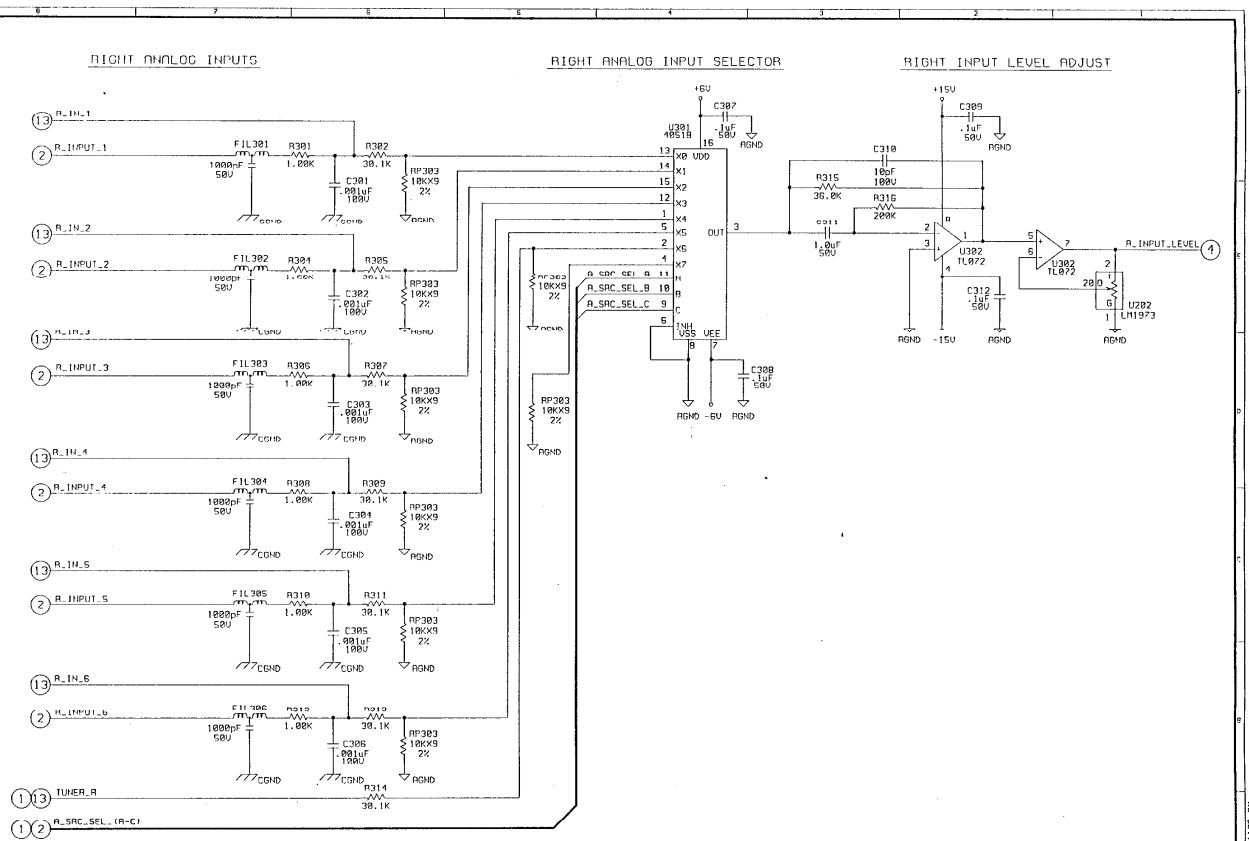

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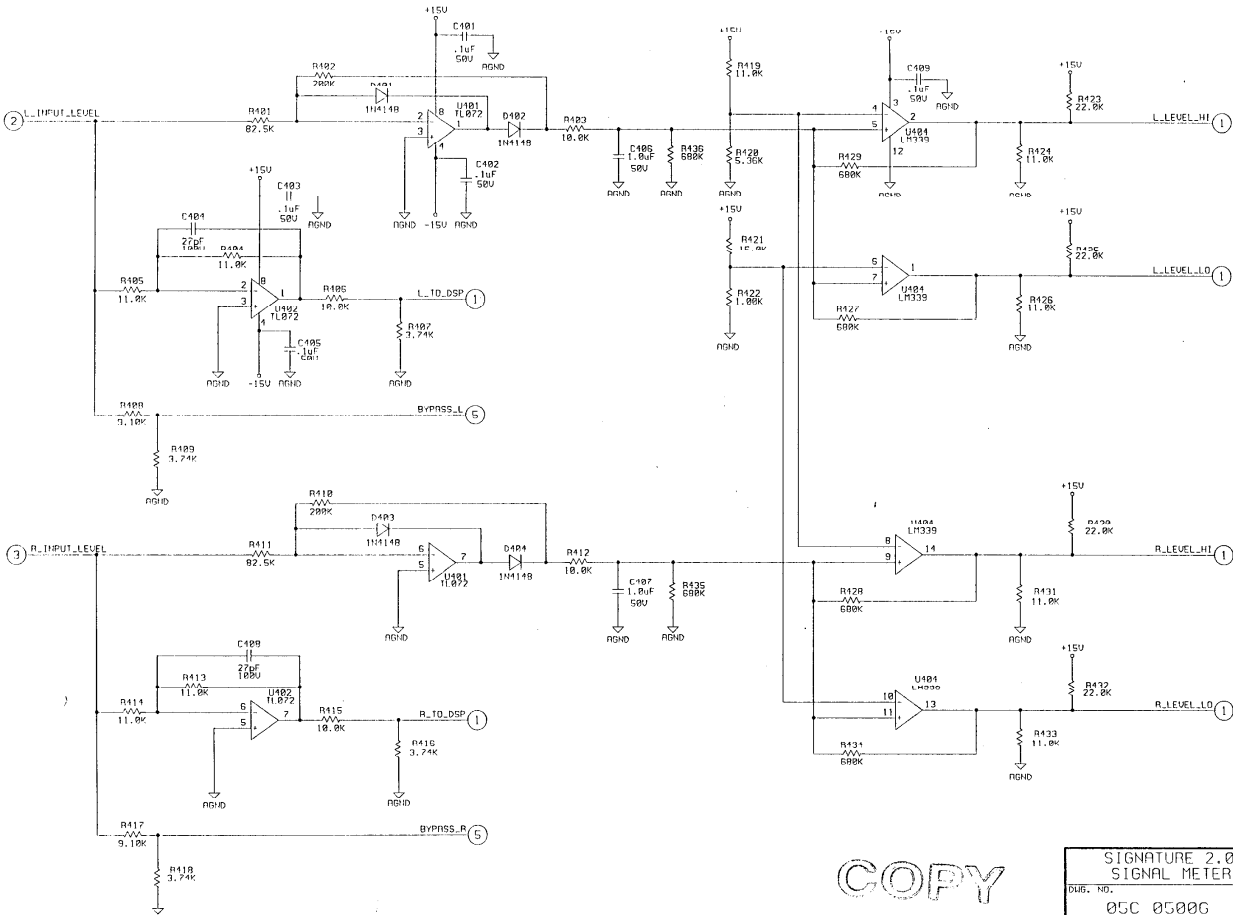
SHEET 3 OF 13	

SIGNATURE 2.0 9-13-97 11:26 AM



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SIGNAL METER

DWG. NO.	REV.
05C 05006	03

SHEET 4 OF 13

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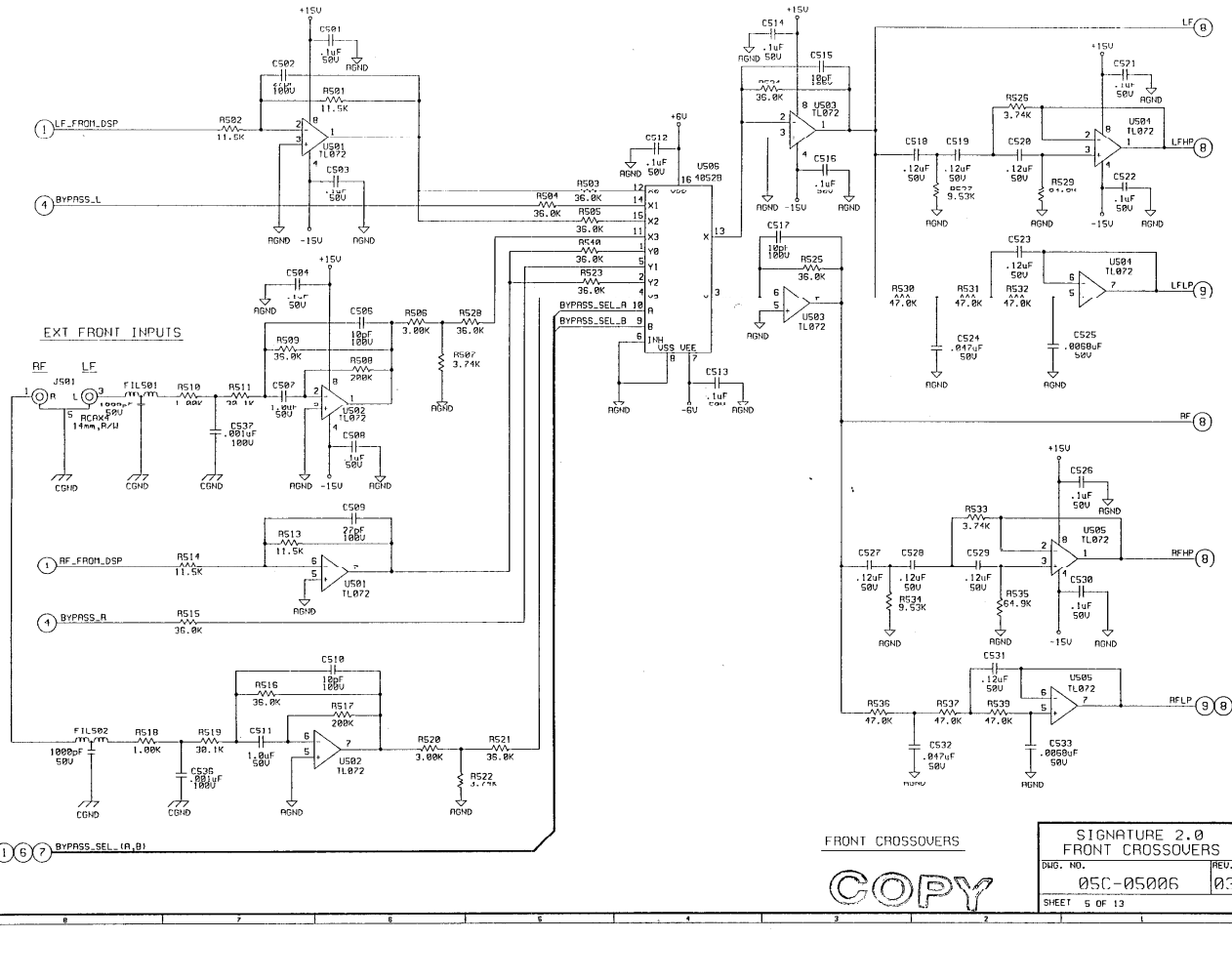
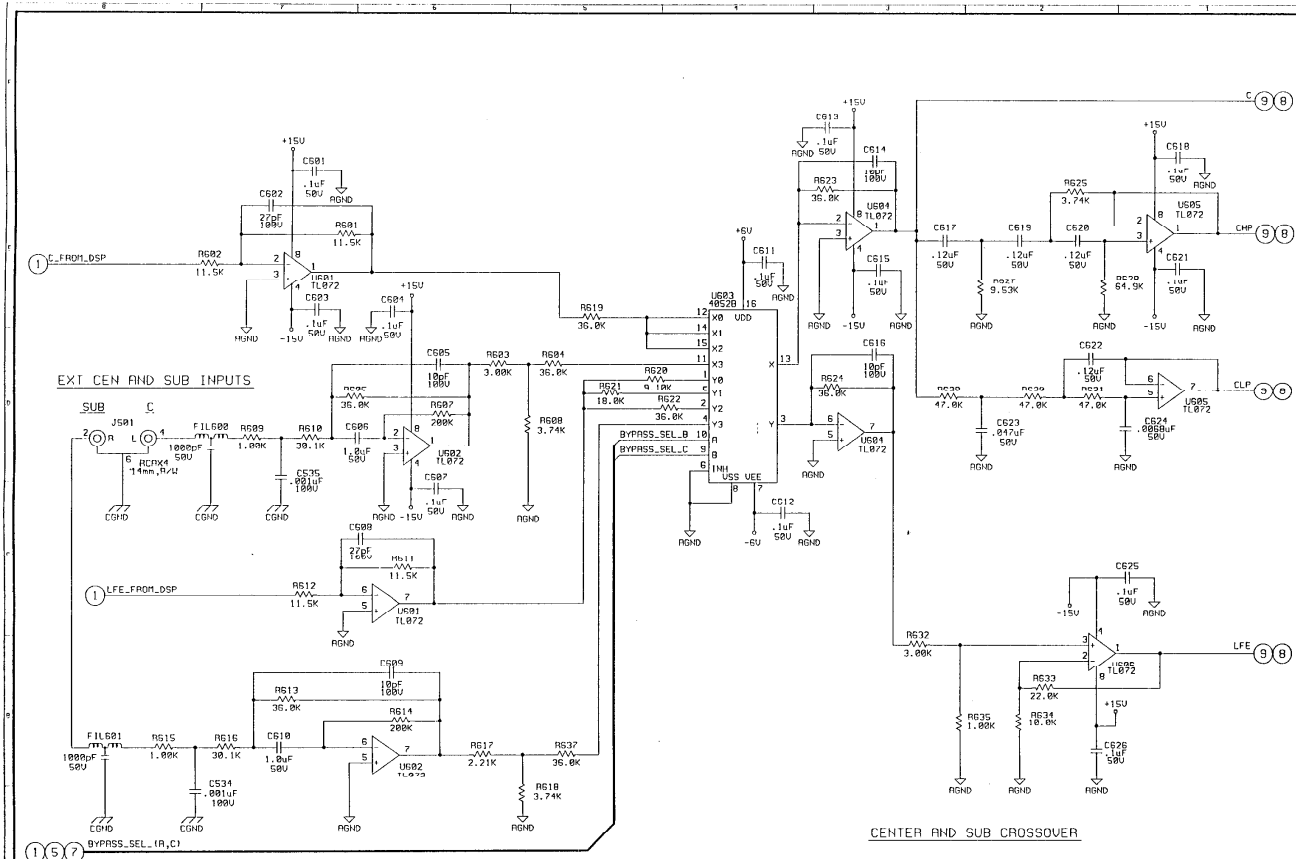

EXT FRONT INPUTS
RF
LF
LF_FROM_DSP
BYPASS_L
RF_FROM_DSP
BYPASS_R
BYPASS_SEL_(A,B)
BYPASS_SEL_A
BYPASS_SEL_B
+15V
-15V
+6V
-6V
AGND
CGND
LF
RF
LFHP
LFLP
RFHP
RFLP
FRONT CROSSOVERS
COPY
SIGNATURE 2.0
FRONT CROSSOVERS
DWG. NO.
05C-05006
REV.
03
SHEET 5 OF 13
SIGNATURE 2.0 9-19-97 11:05 AM



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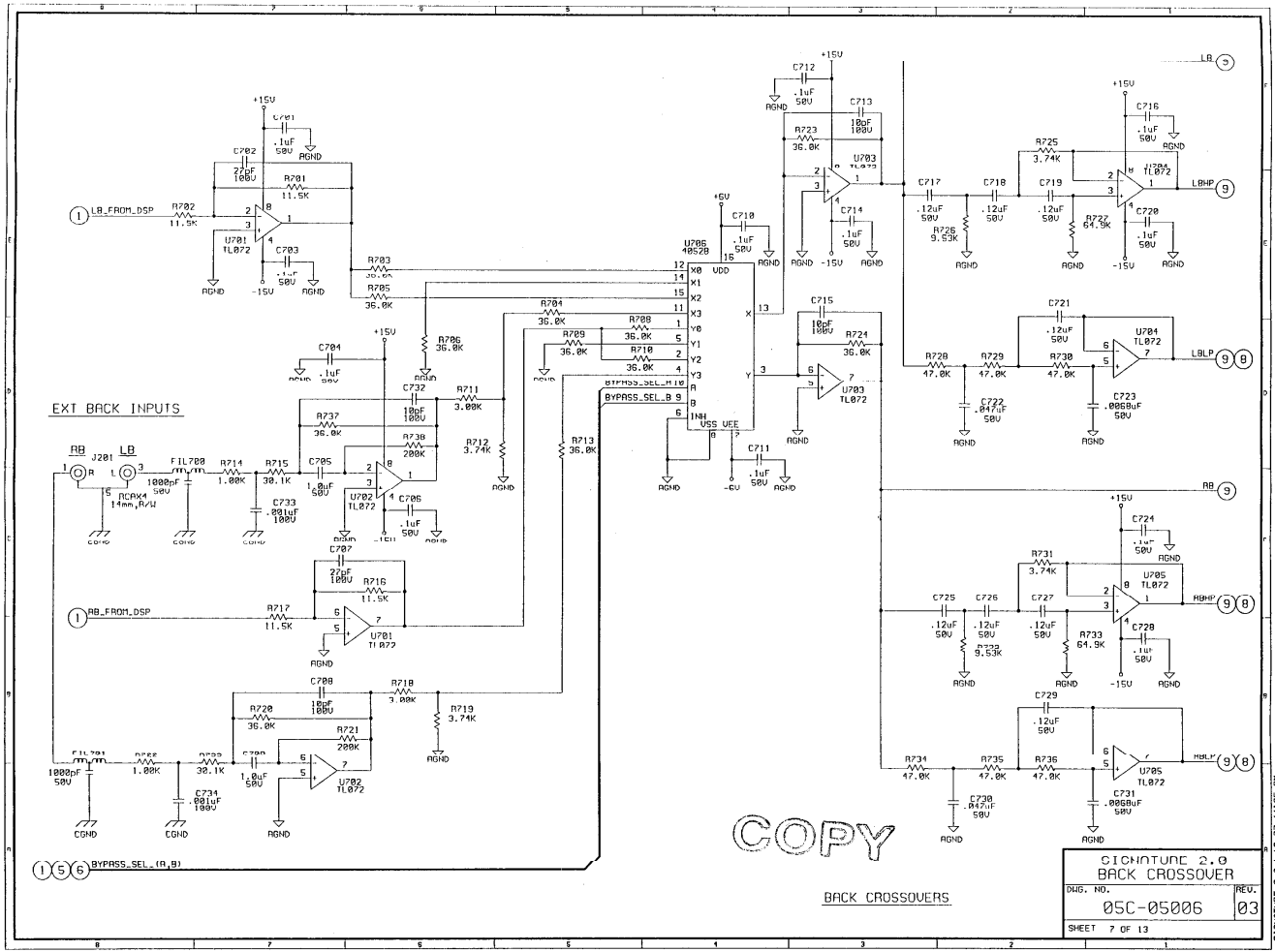
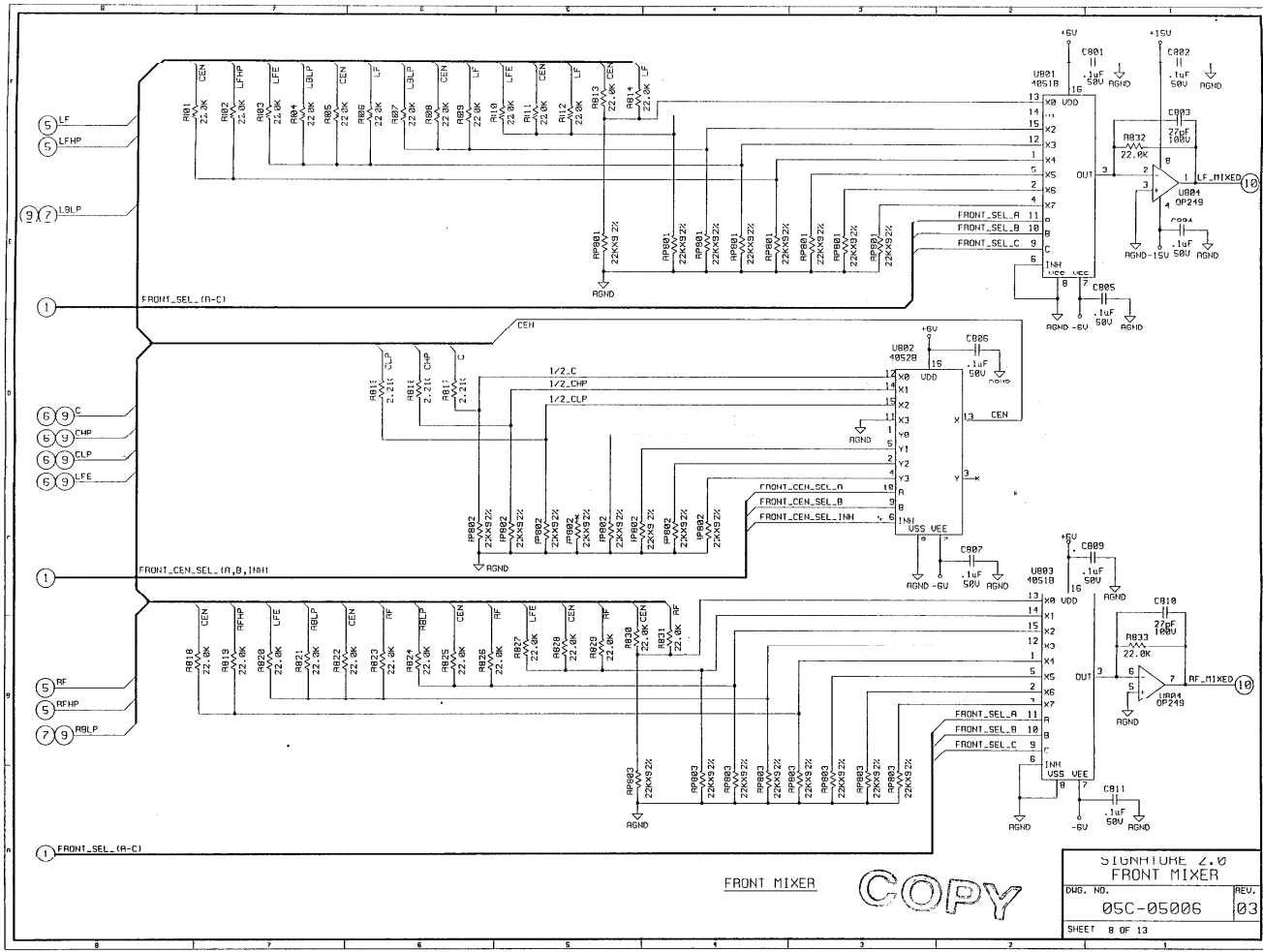
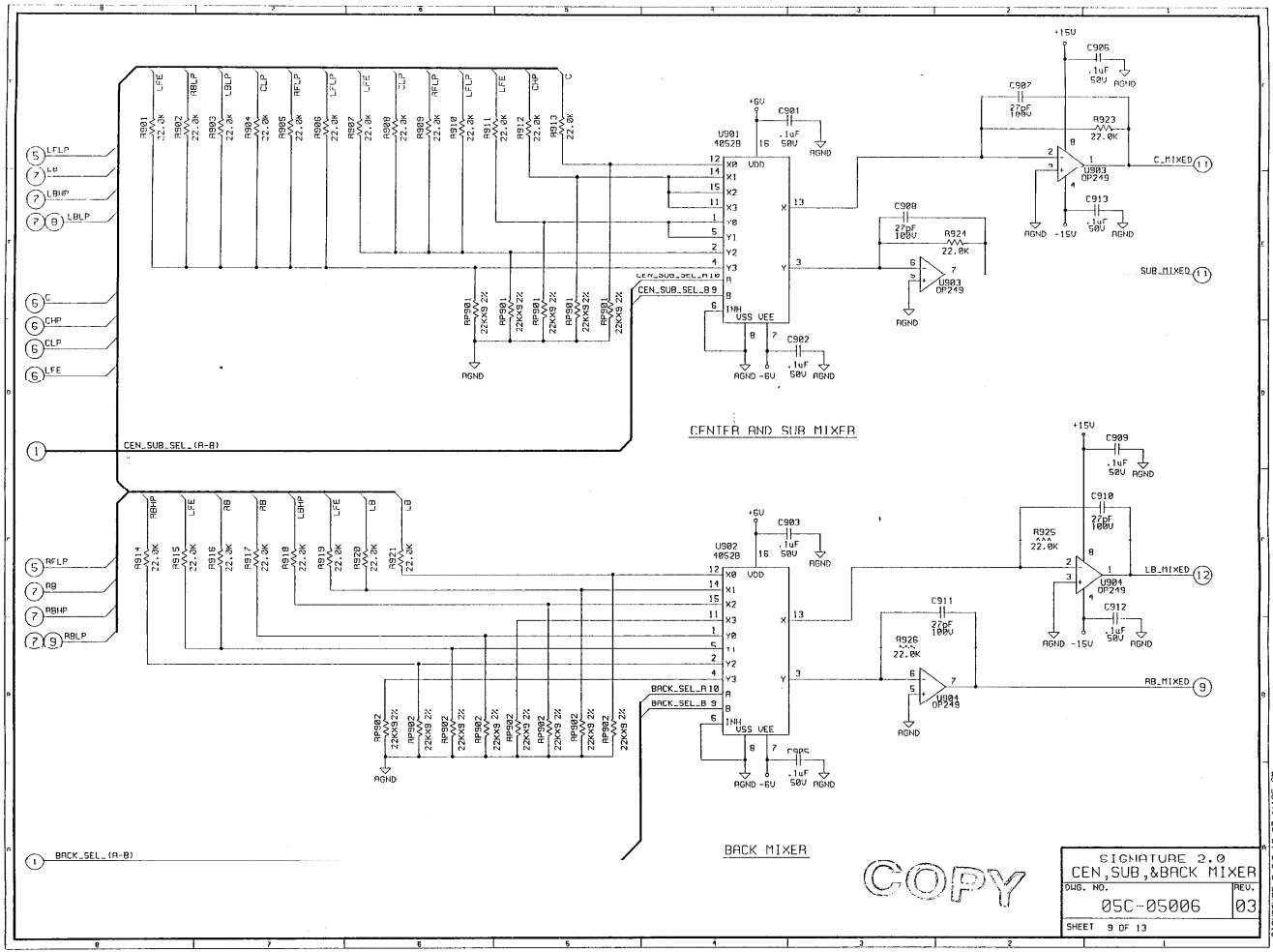
SIGNATURE 2.0	
CENTER&SUB CROSSOVER	
DWG. NO.	REV.
05C-05006	03
SHEET 6 OF 13	

SIGNATURE 2.0 7-13-97 1:05 AM


EXT BACK INPUTS
LB_FROM_DSP
RB_FROM_DSP
BYPASS_SEL_(A,B)
J201
FIL700
FIL701
U701 TL072
U702 TL072
U703 TL072
U704 TL072
U705 TL072
U706 4052B
+15V
-15V
+6V
-6V
AGND
CGND
VDD
VSS
VEE
LB
RB
LBHP
RBHP
LBLP
RBLP
COPY
BACK CROSSOVERS
SIGNATURE 2.0
BACK CROSSOVER
DWG. NO.
05C-05006
REV.
03
SHEET 7 OF 13
SIGNATURE 2.0 1-19-97 11:06 AM

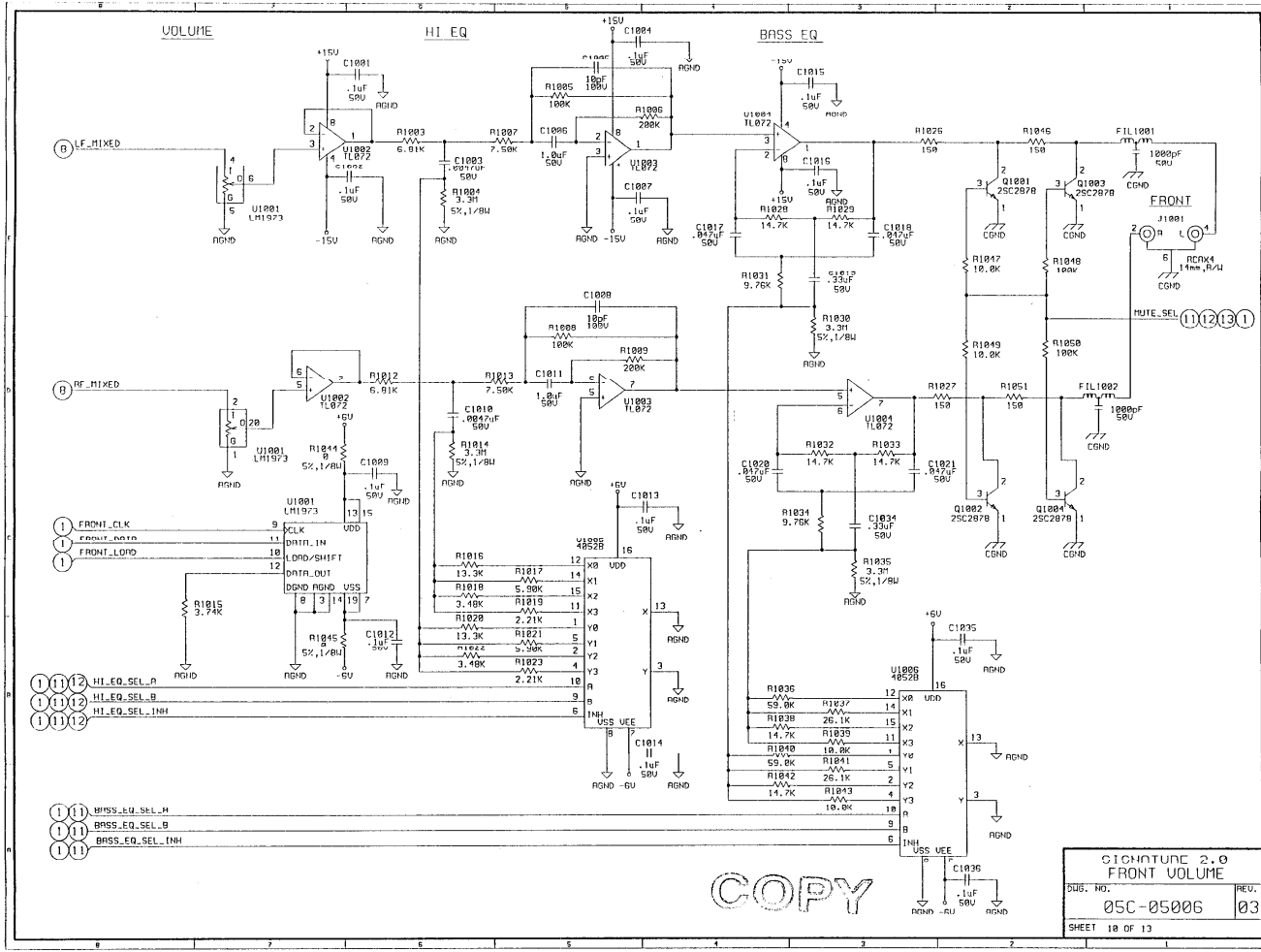

LF
LFHP
LBLP
C
CHP
CLP
LFE
RF
RFHP
RBLP
FRONT_SEL_(A-C)
FRONT_CEN_SEL_(A,B,INH)
U801 4051B
U802 4052B
U803 4051B
U804 OP249
U805 OP249
FRONT_SEL_A
FRONT_SEL_B
FRONT_SEL_C
FRONT_CEN_SEL_A
FRONT_CEN_SEL_B
FRONT_CEN_SEL_INH
1/2_C
1/2_CHP
1/2_CLP
LF_MIXED
RF_MIXED
+6V
-6V
+15V
-15V
AGND
VSS VEE
FRONT MIXER
COPY
SIGNATURE 2.0
FRONT MIXER
DWG. NO. 05C-05006
REV. 03
SHEET 8 OF 13
SIGNATURE 2.0 5-19-97 11:05 AM

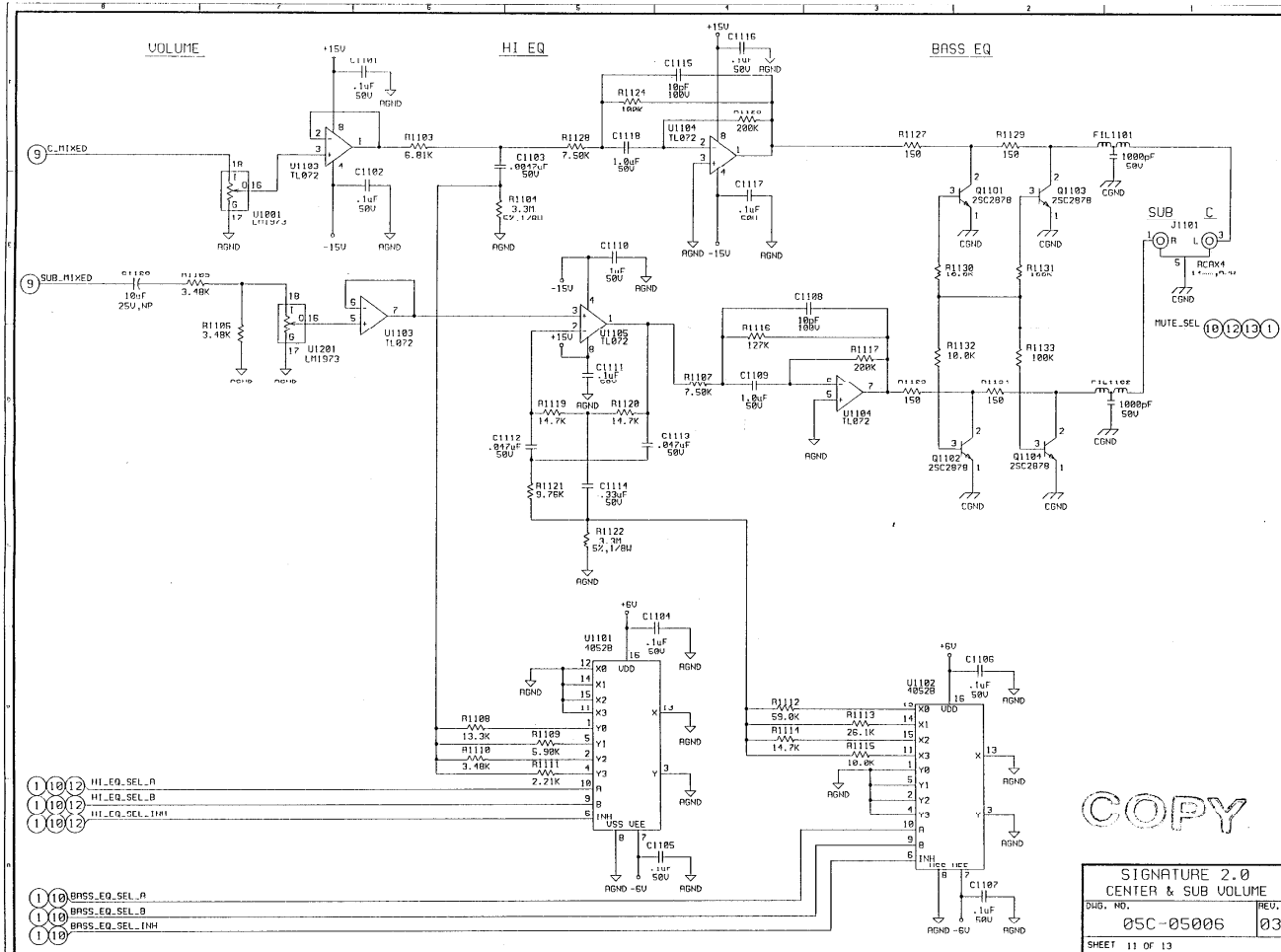


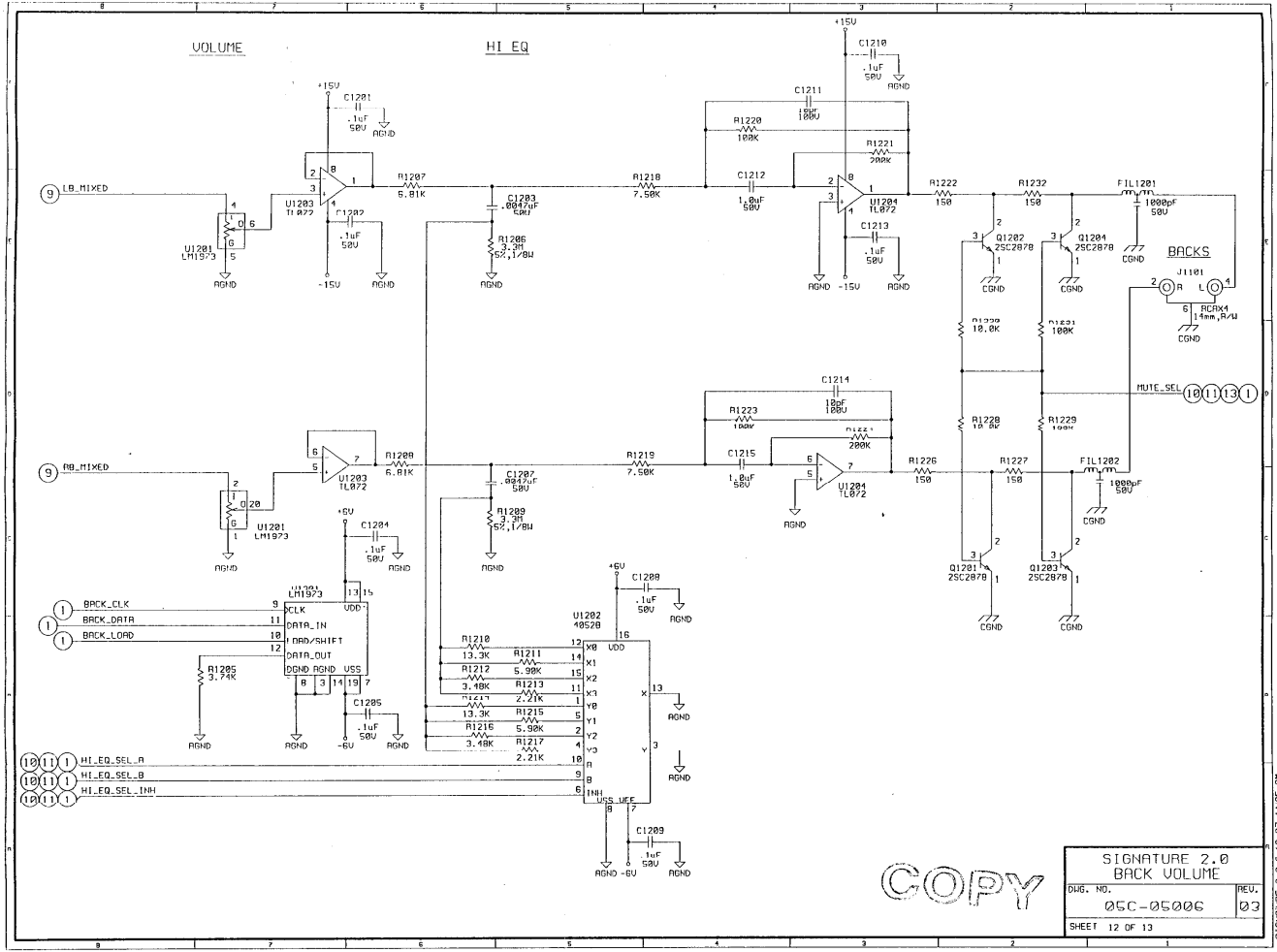
COPY

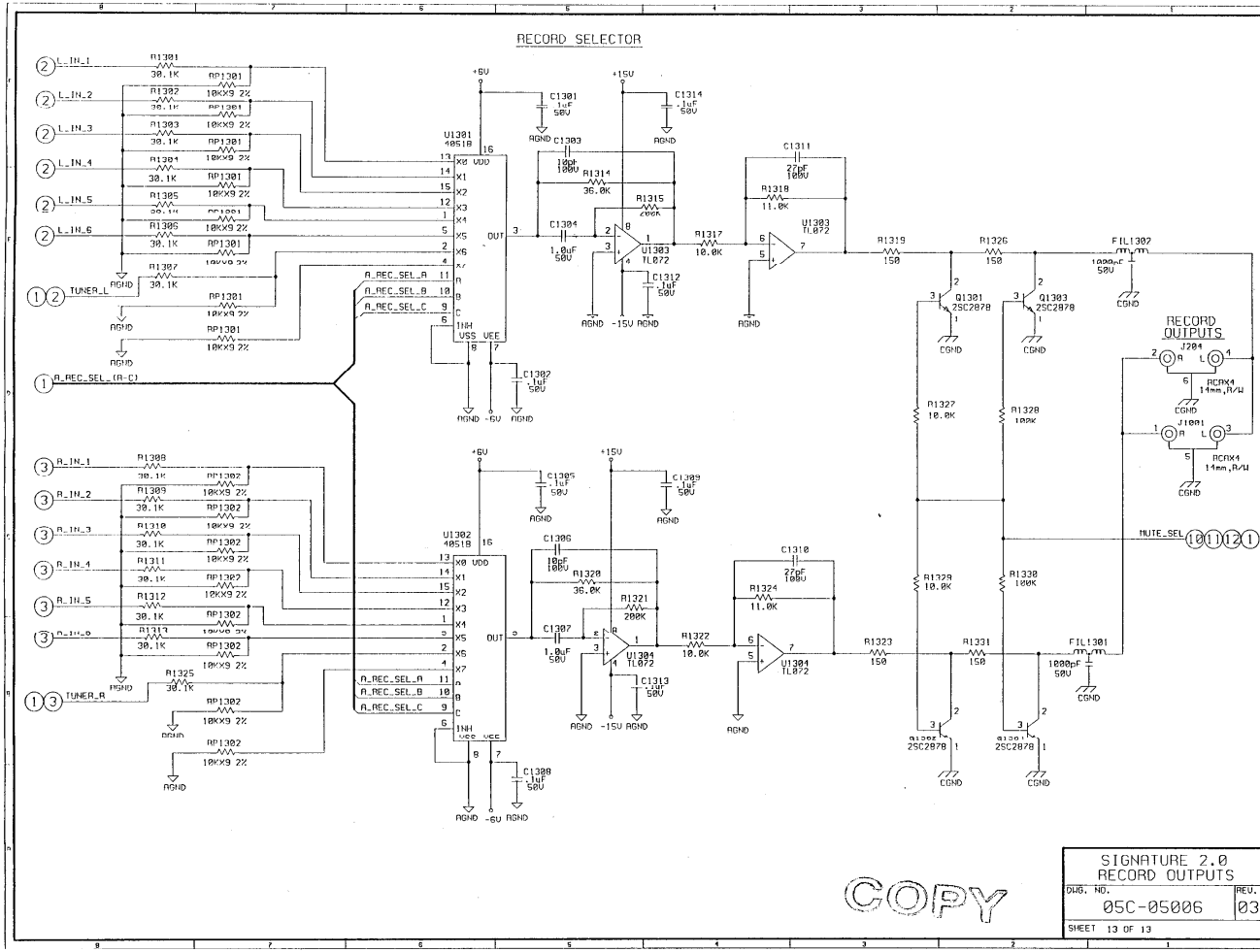
SIGNATURE 2.0 CEN,SUB,&BACK MIXER	
DWG. NO. 05C-05006	REV. 03
SHEET 9 OF 13	

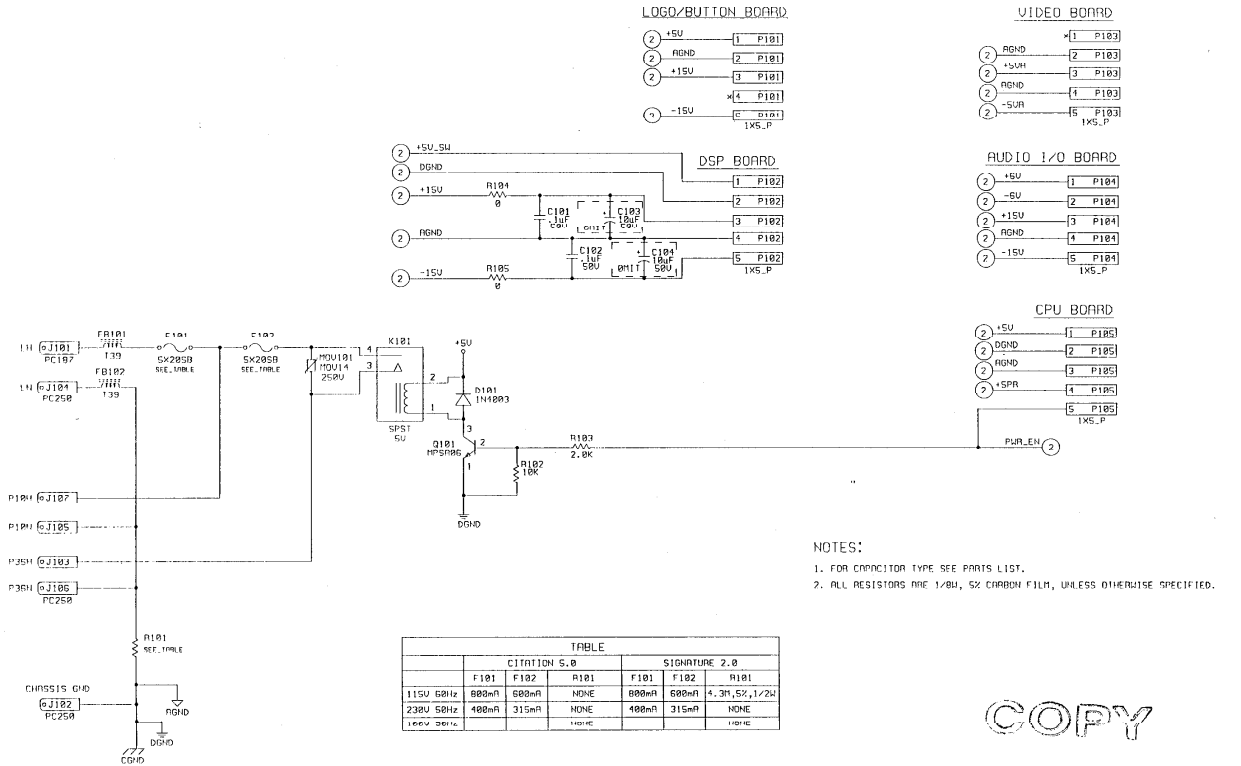
SIGNATURE 2.0 9-19-97 11:05 AM


VOLUME
HI EQ
BASS EQ
LF_MIXED
RF_MIXED
FRONT
FRONT_CLK
FRONT_DATA
FRONT_LOAD
HI_EQ_SEL_A
HI_EQ_SEL_B
HI_EQ_SEL_INH
BASS_EQ_SEL_A
BASS_EQ_SEL_B
BASS_EQ_SEL_INH
MUTE_SEL
+15V
-15V
+6V
-6V
AGND
CGND
U1001 LM1973
U1002 TL072
U1003 TL072
U1004 TL072
U1005 TL072
U1006 4052B
C1001 .1uF 50V
C1002 .0047uF 50V
C1003 .0047uF 50V
C1004 .1uF 50V
C1005 10pF 100V
C1006 1.0uF 50V
C1007 .1uF 50V
C1008 10pF 100V
C1009 .1uF 50V
C1010 .0047uF 50V
C1011 1.0uF 50V
C1012 .1uF 50V
C1013 .1uF 50V
C1014 .1uF 50V
C1015 .1uF 50V
C1016 .1uF 50V
C1017 .047uF 50V
C1018 .047uF 50V
C1019 .33uF 50V
C1020 .047uF 50V
C1021 .047uF 50V
C1034 .33uF 50V
C1035 .1uF 50V
C1036 .1uF 50V
R1001 100K
R1002 200K
R1003 6.81K
R1004 3.3M 5%,1/8W
R1005 100K
R1006 200K
R1007 7.50K
R1008 100K
R1009 200K
R1010 .0047uF 50V
R1011 7.50K
R1012 6.81K
R1013 7.50K
R1014 3.3M 5%,1/8W
R1015 3.74K
R1016 13.3K
R1017 5.90K
R1018 3.48K
R1019 2.21K
R1020 13.3K
R1021 5.90K
R1022 3.48K
R1023 2.21K
R1024 14.7K
R1025 150
R1026 150
R1027 150
R1028 14.7K
R1029 14.7K
R1030 3.3M 5%,1/8W
R1031 9.76K
R1032 14.7K
R1033 14.7K
R1034 9.76K
R1035 3.3M 5%,1/8W
R1036 59.0K
R1037 26.1K
R1038 14.7K
R1039 10.0K
R1040 59.0K
R1041 26.1K
R1042 14.7K
R1043 10.0K
R1044 0 5%,1/8W
R1045 0 5%,1/8W
R1046 150
R1047 10.0K
R1048 100K
R1049 10.0K
R1050 100K
R1051 150
Q1001 2SC2878
Q1002 2SC2878
Q1003 2SC2878
Q1004 2SC2878
FIL1001 1000pF 50V
FIL1002 1000pF 50V
J1001 ACAX4 14mm,R/W
SIGNATURE 2.0
FRONT VOLUME
DWG. NO. 05C-05006
REV. 03
SHEET 10 OF 13
COPY
SIGNATURE 2.0 1-19-97 11:05 AM


VOLUME
HI EQ
BASS EQ
C_MIXED
SUB_MIXED
+15V
-15V
AGND
+6V
-6V
U1001 LM1973
U1103 TL072
U1201 LM1973
U1105 TL072
U1104 TL072
U1101 4052B
U1102 4052B
R1103 6.81K
R1104 3.3M 5%,1/8W
R1105 3.48K
R1106 3.48K
R1107 7.50K
R1108 13.3K
R1109 5.90K
R1110 3.48K
R1111 2.21K
R1112 59.0K
R1113 26.1K
R1114 14.7K
R1115 10.0K
R1116 127K
R1117 200K
R1118 7.50K
R1119 14.7K
R1120 14.7K
R1121 9.76K
R1122 3.3M 5%,1/8W
R1124 100K
R1125 200K
R1127 150
R1129 150
R1130 10.0K
R1131 100K
R1132 10.0K
R1133 100K
C1101 .1uF 50V
C1102 .1uF 50V
C1103 .0047uF 50V
C1105 .1uF 50V
C1106 .1uF 50V
C1107 .1uF 50V
C1108 10pF 100V
C1109 1.0uF 50V
C1110 .1uF 50V
C1111 .1uF 50V
C1112 .047uF 50V
C1113 .047uF 50V
C1114 .33uF 50V
C1115 10pF 100V
C1116 .1uF 50V
C1117 .1uF 50V
FIL1101 1000pF 50V
FIL1102 1000pF 50V
Q1101 2SC2878
Q1102 2SC2878
Q1103 2SC2878
Q1104 2SC2878
J1101 ACAX4
SUB C
MUTE_SEL
HI_EQ_SEL_A
HI_EQ_SEL_B
HI_EQ_SEL_INH
BASS_EQ_SEL_A
BASS_EQ_SEL_B
BASS_EQ_SEL_INH
COPY
SIGNATURE 2.0
CENTER & SUB VOLUME
DWG. NO. 05C-05006
REV. 03
SHEET 11 OF 13
SIGNATURE 2.0 9:19:37 11:35 AM


VOLUME
HI EQ
BACKS
LB_MIXED
RB_MIXED
MUTE_SEL
BACK_CLK
BACK_DATA
BACK_LOAD
HI_EQ_SEL_A
HI_EQ_SEL_B
HI_EQ_SEL_INH
+15V
-15V
+6V
-6V
AGND
CGND
U1201 LM1973
U1202 4052B
U1203 TL072
U1204 TL072
Q1201 2SC2878
Q1202 2SC2878
Q1203 2SC2878
Q1204 2SC2878
J1101 RCAX4 14mm,R/W
R1205 3.74K
R1206 3.3M 5%,1/8W
R1207 6.81K
R1208 6.81K
R1209 3.3M 5%,1/8W
R1210 13.3K
R1211 5.90K
R1212 3.48K
R1213 2.21K
R1214 13.3K
R1215 5.90K
R1216 3.48K
R1217 2.21K
R1218 7.50K
R1219 7.50K
R1220 100K
R1221 200K
R1222 150
R1223 100K
R1224 200K
R1226 150
R1227 150
R1228 10.0K
R1229 100K
R1230 10.0K
R1231 100K
C1201 .1uF 50V
C1202 .1uF 50V
C1203 .0047uF 50V
C1204 .1uF 50V
C1205 .1uF 50V
C1206 .1uF 50V
C1207 .0047uF 50V
C1208 .1uF 50V
C1209 .1uF 50V
C1210 .1uF 50V
C1211 100pF 100V
C1212 1.0uF 50V
C1213 .1uF 50V
C1214 100pF 100V
C1215 1.0uF 50V
FIL1201 1000pF 50V
FIL1202 1000pF 50V
COPY
SIGNATURE 2.0 BACK VOLUME
DWG. NO. 05C-05006
REV. 03
SHEET 12 OF 13
SIGNATURE 2.0 8-19-97 11:05 AM


RECORD SELECTOR
L_IN_1
L_IN_2
L_IN_3
L_IN_4
L_IN_5
L_IN_6
TUNER_L
A_REC_SEL_(A-C)
A_REC_SEL_A
A_REC_SEL_B
A_REC_SEL_C
A_IN_1
A_IN_2
A_IN_3
A_IN_4
A_IN_5
TUNER_R
U1301 4051B
U1302 4051B
U1303 TL072
U1304 TL072
U1305 TL072
Q1301 2SC2878
Q1303 2SC2878
RECORD OUTPUTS
MUTE_SEL
SIGNATURE 2.0
RECORD OUTPUTS
DWG. NO. 05C-05006
REV. 03
SHEET 13 OF 13
COPY



NOTES:

1. FOR CAPACITOR TYPE SEE PARTS LIST.
2. ALL RESISTORS ARE 1/8W, 5% CARBON FILM, UNLESS OTHERWISE SPECIFIED.

TABLE						
	CITATION 5.0			SIGNATURE 2.0		
	F101	F102	R101	F101	F102	R101
115V 60Hz	800mA	600mA	NONE	800mA	600mA	4.3M,5%,1/2W
230V 50Hz	400mA	315mA	NONE	400mA	315mA	NONE
100V 50Hz			NONE			NONE

COPY

RELEASED FOR MANUFACTURE
BY 11/19

SIGNATURE		DATE
DRAWN	S.McRAE	11-20-96
DSETG CHK		1-7-97
PROJ MGR		

C5PWR01.SCH

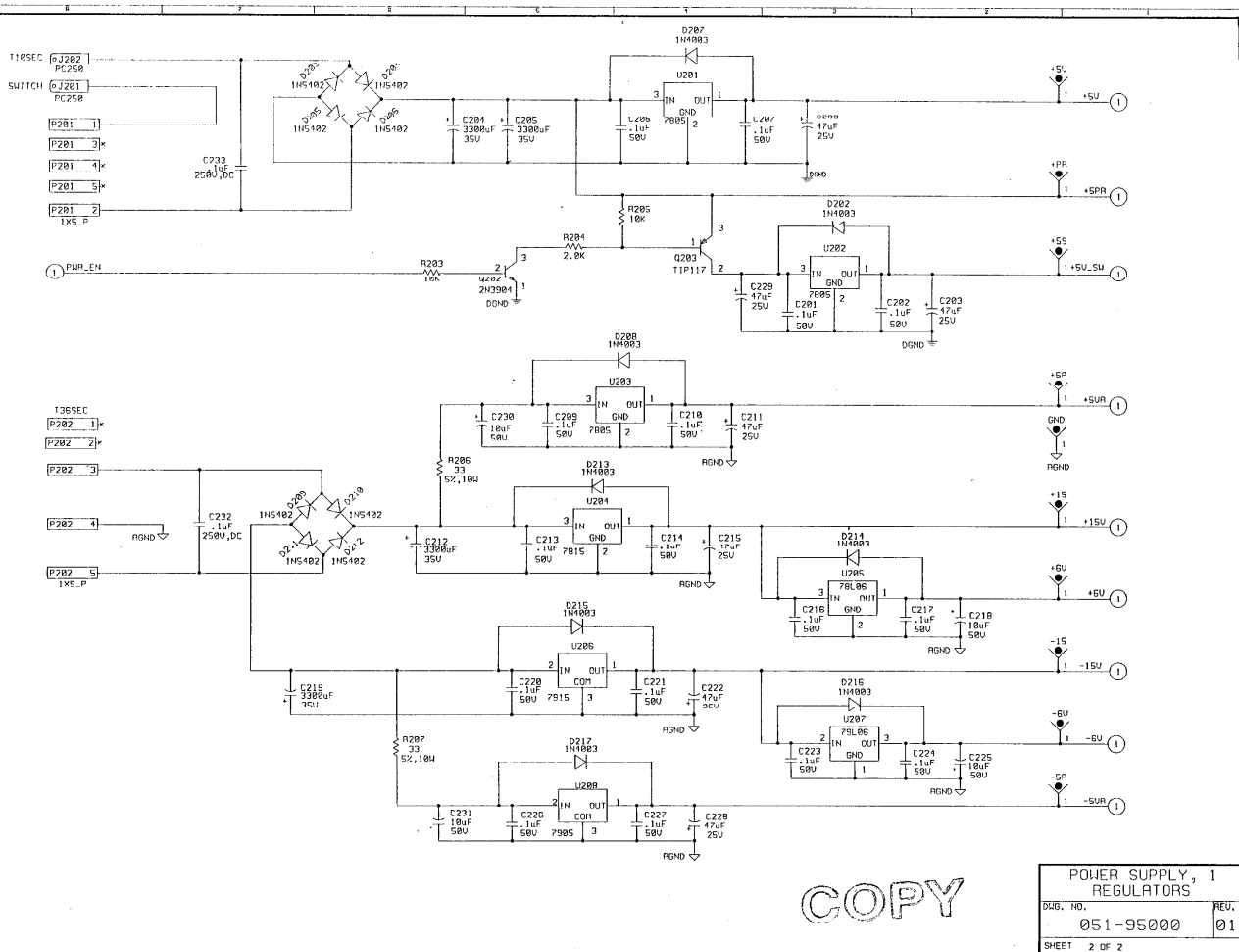
harman consumer group
digital entertainment product center
1308 Borregas Avenue
Sunnyvale, CA 94089-1001

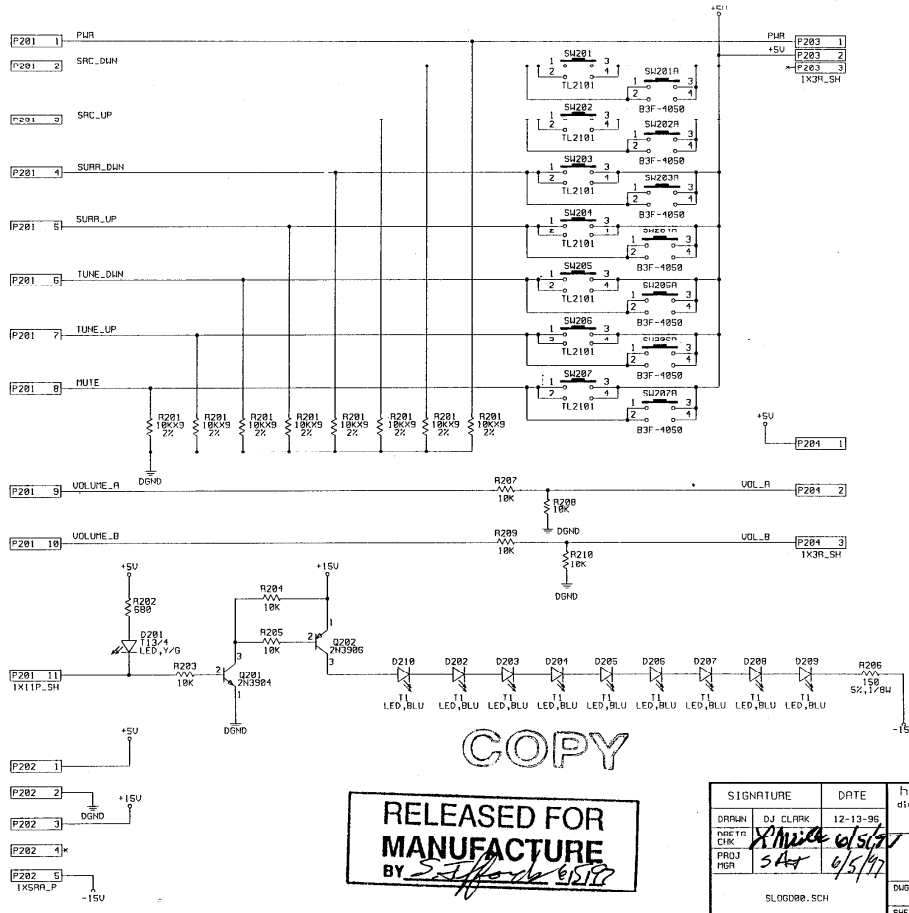
POWER SUPPLY, 1
CONNECTORS

DWG. NO. 051-95000 REV. 01

SHEET 1 OF 2

CITATION 5.0/SIGNATURE 2.0 1-6-98 1:40 PM


T10SEC
SWITCH
PWR_EN
T36SEC
AGND
DGND
GND
+5V
+5VR
+5PR
+5V_SW
+15V
+6V
-15V
-6V
-5VR
COPY
POWER SUPPLY, 1
REGULATORS
DWG. NO.
051-95000
REV.
01
SHEET 2 OF 2
CITATION 5.0/SIGNATURE 2.8 1-6-98 2:40 PM



COPY

RELEASED FOR MANUFACTURE BY 6/5/97

SIGNATURE		DATE
DRAWN	DJ CLARK	12-13-96
ENGTG CHK		6/5/97
PROJ MGR		6/5/97
SLOGO00.SCH		

harman consumer group
digital entertainment product center
1300 Borregas Avenue
Sunnyvale, CA 94089-1001

SIGNATURE 2.0
BUTTON/LOGO

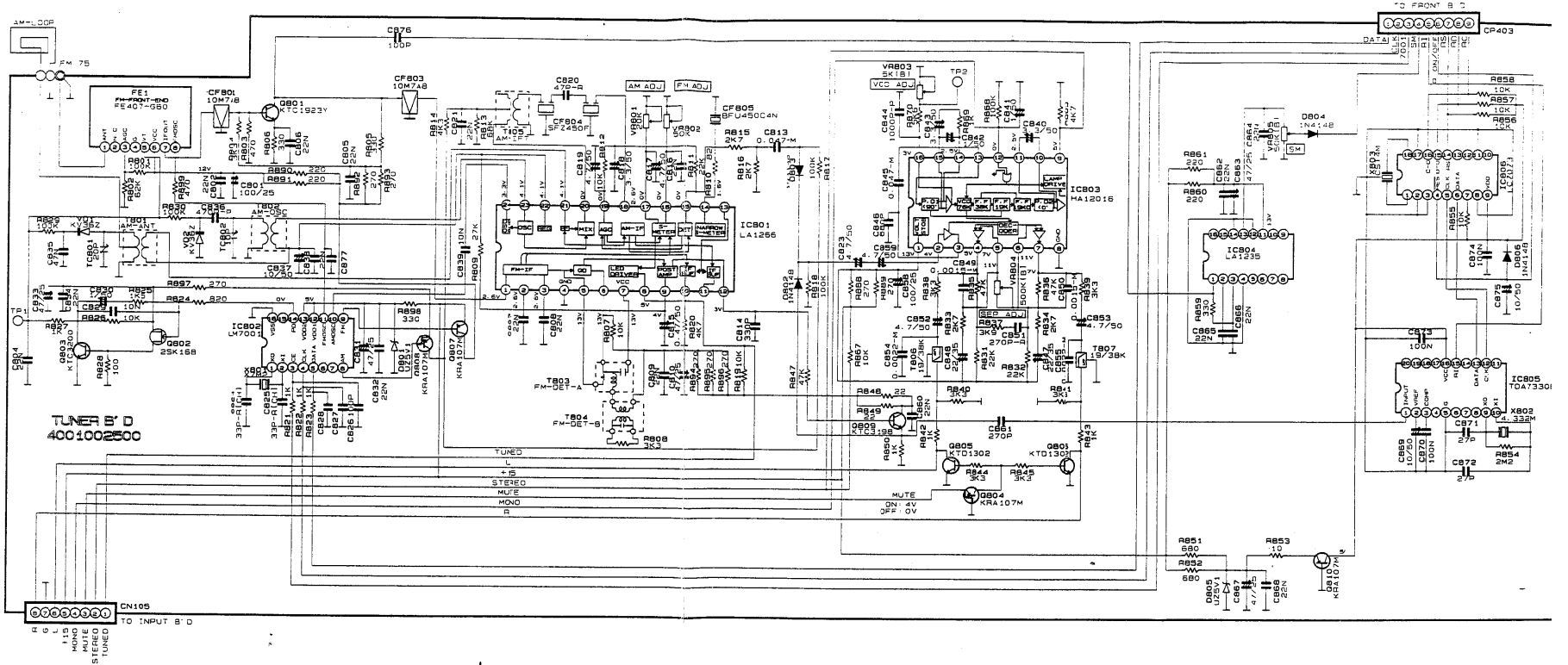
DWG. NO. 055-05006 REV. 00

SHEET 1 OF 1

SIGNATURE 2.0 5-9-97 9:59 AM

HAITAI		HAITAI CAD TEAM	
MODEL NAME	AVR-2:	DESIGN	
BOARD NAME	TUNER1	INSPECTION	
STEP	M/B	APPROVAL	
SHEET NO.	1	DATE	97. 3. 13

SCHEMATIC DIAGRAM



: "A" Version change

COPY

NOTES

1. Resistor values are indicated in ohms unless otherwise specified (K=1,000 M=1,000,000)
2. Capacitor values are indicated in microfarades unless otherwise specified. (p=micro-microfarades)

CAUTION

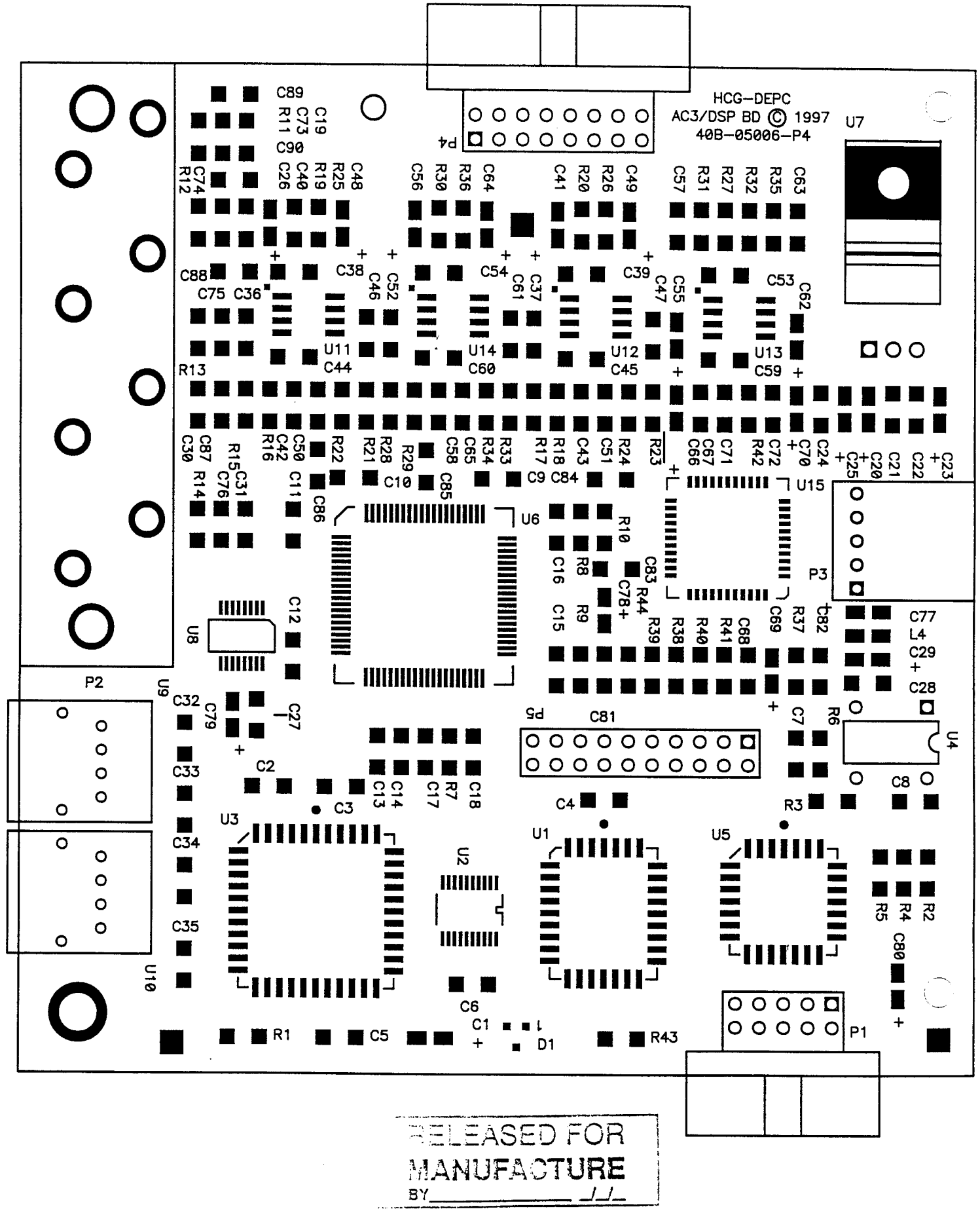
Safety precaution to be followed during servicing

1) Since those parts marked with ⚠ are critical parts for safety, use only the one described in the parts list

2) Before returning the set to the customer make appropriate leakage current or resistance measurements to determine the exposed parts are properly insulated from the supply circuit

RE'ICED			
NO.	DATE	NO.	DATE
1		6	
2		7	
3		8	
4		9	
5		10	

EQUIPMENT	TUNER	MODEL	AVR-
DRAW	CHECKED	APPROVED	DATE	DRAWING
			97. 3. 19	

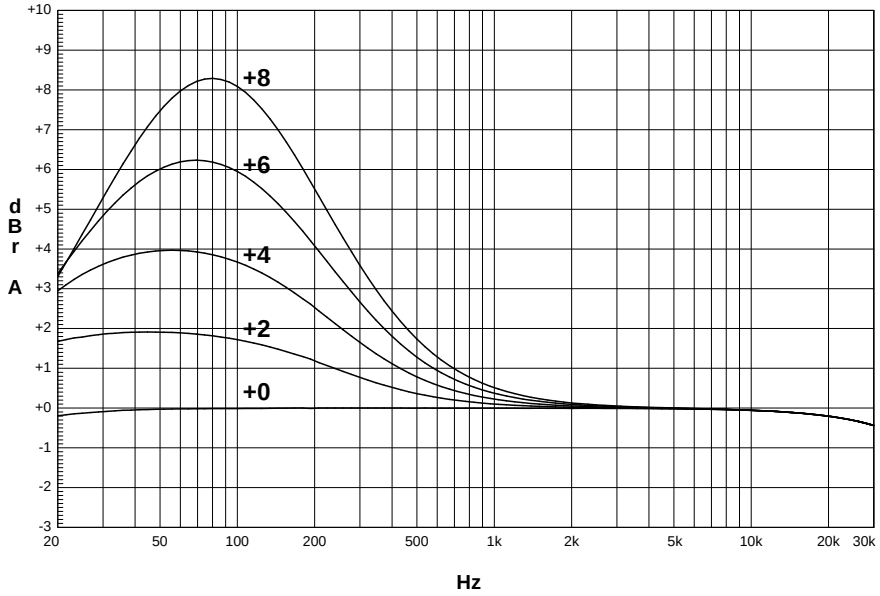


RELEASED FOR MANUFACTURE
BY _____

AC3/DSP SILKSCREEN - REV PH

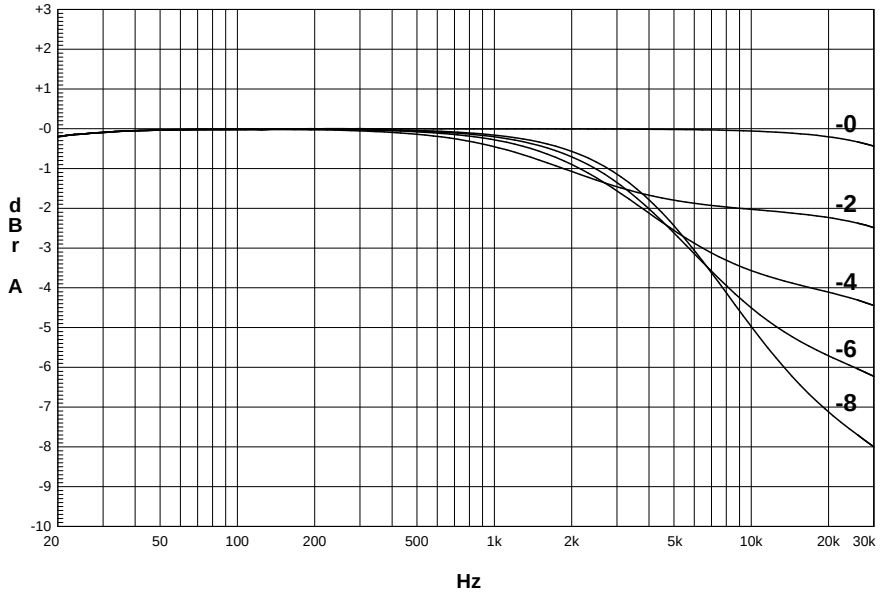
Bass Boost

This chart, using data from a sample Signature 2.0 unit and automated test equipment, shows the frequencies at which low-frequency information is boosted when settings are changed with the **Bass Boost** control ⓭, or through the use of the `Effects Menu` (Figure OSD-8).



Treble Cut

This chart, using data from a sample Signature 2.0 unit and automated test equipment, shows the frequencies at which high-frequency information is rolled off when settings are changed with the **Treble Cut** control ⓫, or through the use of the `Effects Menu` (Figure OSD-8).



ASM: HA206-0015-3 **SIG 2.0 AUDIO BOARD ASY,REV03** **EA M**

Gallien Part Number	Description
001-1030-1	TL072CP, LOW NOISE JFET OPAMP EA B 29.000000 EP 0 0 0.0 A REF: U 201,302,401,402,501,502,503, REF: 504,505,601,602,604,605,606,701 REF: 702,703,704,705,1002,1003,1004, REF: 1103,1104,105,1203,1204,1303, REF: 1304
001-1031-0	OP249,OPAMP DUAL PREC HS JFET EA B 3.000000 EP 0 0 0.0 A REF: U 804,903,904
001-1195-0	LM339A,QUAD COMPARATOR EA B 1.000000 EP 0 0 0.0 0 A REF: U 404
001-1973-0	LM1973N DIGITAL ATTENUATOR EA B 3.000000 EP 0 0 0.0 A REF: U 202,1001,1201
002-0035-0	CD4052 EA B 11.000000 EP 0 0 0.0 A REF: U 506,603,706,802,901,902,1005, REF: 1006,1005,1101,1102,1202
002-0051-0	CD4051 EA B 6.000000 EP 0 0 0.0 A REF: U 200,301,801,803,1301,1302
010-0004-0	2SC2878B,TRANS,NPN,MUTING EA B 16.000000 EP 0 0 0.0 A REF: Q 1001,1002,1003,1004,1101,1102, REF: 1103,1104,1201,1202,1203,1204, REF: 1301,1302,1303,1304
020-1000-0	1N4148 ,RECT-FAST,200MA,100V,4NS,DO-35 EA B 4.000000 EP 0 0 0.0 AI A REF: D 401,402,403,404
030-2104-0	CAP,CER,AX,104,10%,50V,X7R EA B 105.000000 EP 0 0 0.0 AI A REF: C 207,208,212,213,307,308,309, REF: 312,313,314,401,402,403,405,409, REF: 501,503,504,508,512,513,514,516, REF: 521,526,530,601,603,604,607,611 REF: 612,613,615,618,621,625,626,701 REF: 703,704,706,710,711,712,714,716 REF: 720,724,728,801,802,804,805,806 REF: 807,809,811,901,902,903,905,906 REF: 909,912,913,1001,1002,1004,1007 REF: 1009,1012,1013,1014,1015,1016, REF: 1035,1036,1101,1102,1104,1105, REF: 1106,1107,1110,1111,1116,1117, REF: 1201,1202,1204,1205,1208,1209, REF: 1210,1213,1301,1302,1305,1308,
030-2104-0	CAP,CER,AX,104,10%,50V,X7R EA B 105.000000 EP 0 0 0.0 AI A REF: 1309,1312,1313,1314,522

030-2270-0	CAP,CER AXIAL,27 PF,10%,50V,NPO	EA B
	16.000000 EP 0 0 0.0 AI	A
	REF: C 404,408,502,509,602,608,702,	
	REF: 707,803,810,907,908,910,911,1311	
	REF: 1310	
030-4100-0	CAP,CER AXIAL,10 PF,10%,100V	EA B
	22.000000 EP 0 0 0.0	A
	REF: C 209,310,506,510,515,517,605,	
	REF: 609,614,616,708,713,715,732,1005	
	REF: 1008,1108,1115,1211,1214,1303,	
	REF: 1306	
030-4102-0	CAP,CER AXIAL,102,10%,100V,X7R	EA B
	18.000000 EP 0 0 0.0	A
	REF: C 201,202,203,204,205,206,301,	
	REF: 302,303,304,305,306,534,535,536	
	REF: 537,733,734	
031-0106-1	CAP,ELEC,RAD,106,20%,25V,NP	EA B
	1.000000 EP 0 0 0.0	A
	REF: C 1102	
036-2105-0	CAP,PE,RAD,105,5%,50V	EA B
	18.000000 EP 0 0 0.0	A
	REF: C 210,311,406,407,507,511,606,	
	REF: 610,705,709,1006,1011,1109,1118	
	REF: 1212,1215,1304,1307	
036-2124-0	CAP,PE,RAD,124,5%,50V	EA B
	20.000000 EP 0 0 0.0	A
	REF: C 518,519,520,523,527,528,529,	
	REF: 531,617,619,620,622,717,718,719	
	REF: 721,726,727,729	
036-2334-0	CAP,PE,RAD,334,5%,50V	EA B
	3.000000 EP 0 0 0.0	A
	REF: C 1019,1034,1114	
036-2472-0	CAP,PE,RAD,472,5%,50V	EA B
	5.000000 EP 0 0 0.0	A
	REF: C 1003,1010,1103,1203,1207	
036-2473-0	CAP,PE,RAD,473,5%,50V	EA B
	11.000000 EP 0 0 0.0	A
	REF: C 524,532,623,722,730,1017,1020	
	REF: 1021,1112,1113,1118	
036-2682-0	CAP,PE,RAD,682,5%,50V	EA B
	5.000000 EP 0 0 0.0	A
	REF: C 525,533,624,723,731	
050-0000-0	RES,METAL WIRE,0 OHM,1/8W	EA B
	4.000000 EP 0 0 0.0 AI	A
	REF: R 217,218,1044,1045	
050-3305-0	RES,CARBON FILM,3.3M OHM,1/8W,5%	EA B
	8.000000 EP 0 0 0.0	A
	REF: R 1004,1014,1030,1035,1104,1122	
	REF: 1206,1209	
058-1003-0	RES,SIP 10K OHMS X 9	EA B
	4.000000 EP 0 0 0.0 0	A
	REF: RP 203,303,1301,1302	
058-2203-0	RES,SIP,22K OHMS X9,2%	EA B

	5.000000 EP 0 0 0.0 A	
	REF: RP 801,802,803,901,902	
060-1002-0	RES,METAL FILM,1.00K,1/8W,1%	EA B
	20.000000 EP 0 0 0.0 AI A	
	REF: R 201,204,206,208,210,212,301	
	REF: 304,306,308,310,312,422,510,518	
	REF: 609,615,635,714,722	
060-1003-0	RES,METAL FILM,10.0K OHM,1/8W,1%	EA B
	25.000000 EP 0 0 0.0 AI A	
	REF: R 101,102,103,104,105,106,107,	
	REF: 403,406,412,415,634,1039,1043,	
	REF: 1047,1049,1115,1130,1132,1228,	
	REF: 1230,1317,1322,1327,1329	
060-1004-0	RES,METAL FILM,100K,1/8W,1%	EA B
	13.000000 EP 0 0 0.0 AI A	
	REF: R 1005,1008,1048,1050,1124,1131,	
	REF: 1133,1220,1223,1229,1231,1328,	
	REF: 1330	
060-1103-0	RES,METAL FILM,11.0K,1/8W,1%	EA B
	11.000000 EP 0 0 0.0 AI A	
	REF: R 404,405,413,414,419,424,426,	
	REF: 431,433,1318,1324	
060-1153-0	RES,METAL FIM,11.5 K OHM,1%,1/8W	EA B
	12.000000 EP 0 0 0.0 A	
	REF: R 501,502,513,514,601,602,611,	
	REF: 612,701,702,716,717	
060-1274-0	RES,METAL FILM,127K,1/8W,1%	EA B
	1.000000 EP 0 0 0.0 A	
	REF: R 1116	
060-1333-0	RES,METAL FILM,13.3 K OHM,1%,1/8W	EA B
	5.000000 EP 0 0 0.0 A	
	REF: R 1016,1020,1108,1210,1214	
060-1473-0	RES,METAL FILM,14.7 K OHM,1%,1/8W	EA B
	9.000000 EP 0 0 0.0 A	
	REF: R 1028,1029,1032,1033,1038,1042	
	REF: 1114,1119,1120	
060-1501-0	RES,METAL FILM,150 OHMS,1/8W,1%	EA B
	16.000000 EP 0 0 0.0 A	
	REF: R 1026,1027,1046,1051,1123,1127	
	REF: 1129,1134,1222,1226,1227,1232,	
	REF: 1319,1323,1326,1331	
060-1503-0	RES,METAL FILM,15.0 K OHM,1/8W,1%	EA B
	1.000000 EP 0 0 0.0 A	
	REF: R 421	
060-1803-0	RES,METAL FILM,18K OHM,1/8W,1%	EA B
	1.000000 EP 0 0 0.0 A	
	REF: R 621	
060-2004-0	RES,METAL FILM,200K OHM,1/8W,1%	EA B
	18.000000 EP 0 0 0.0 A	
	REF: R 216,316,402,410,508,517,607,	
	REF: 614,721,738,1006,1009,1117,1126	
	REF: 1221,1224,1315,1321	
060-2203-0	RES,METAL FILM,22K OHM,1/8W,1%	EA B

	60.000000 EP 0 0 0.0 A	
	REF: R 423,425,430,432,633,801,802,	
	REF: 803,804,805,806,807,808,809,810,	
	REF: 811,812,813,814,818,819,820,821	
	REF: 822,823,824,825,826,827,828,829	
	REF: 830,831,832,833,901,902,903,904	
	REF: 905,906,907,908,909,910,911,912	
	REF: 913,914,915,916,917,918,919,920	
	REF: 921,923,924,925,926	
060-2212-0	RES,METAL FILM,2.21K OHM,1/8W,1%	EA B
	9.000000 EP 0 0 0.0 A	
	REF: R 617,815,816,817,1019,1023,1111	
	REF: 1213,1217	
060-2613-0	RES,METAL FILM,26.1 KOHM,1%,1/8W	EA B
	3.000000 EP 0 0 0.0 A	
	REF: R 1037,1041,1113	
060-3002-0	RES,METAL FILM,3 K OHM,1%,1/8 W	EA B
	6.000000 EP 0 0 0.0 A	
	REF: R 506,520,603,632,711,718	
060-3103-0	RES,METAL FILM,30.1K OHM,1/8W,1%	EA B
	34.000000 EP 0 0 0.0 A	
	REF: R 202,205,207,209,211,213,214,	
	REF: 302,305,307,309,311,313,314,511	
	REF: 519,610,616,715,739,1301,1302,	
	REF: 1303,1304,1305,1306,1307,1308	
	REF: 1309,1310,1311,1312,1313,1325	
060-3482-0	RES,METAL FILM,3.48K OHM,1/8W,1%	EA B
	7.000000 EP 0 0 0.0 A	
	REF: R 1018,1022,1105,1106,1110,1212,	
	REF: 1216	
060-3603-0	RES,METAL FILM,36K OHM,1/8W,1%	EA B
	36.000000 EP 0 0 0.0 A	
	REF: R 215,315,503,504,505,509,515,	
	REF: 516,521,523,524,525,528,540,604,	
	REF: 605,613,619,622,623,624,637,703,	
	REF: 704,705,706,708,709,710,713,720,	
	REF: 723,724,737,1314,1320	
060-3742-0	RES,METAL FILM,3.74K OHM,1/8W,1%	EA B
	18.000000 EP 0 0 0.0 A	
	REF: R 318,407,409,416,418,507,522,	
	REF: 526,533,608,618,625,712,719,725	
	REF: 731,1015,1205	
060-4703-0	RES,METAL FILM,47.0K OHM,1/8W,1%	EA B
	15.000000 EP 0 0 0.0 AI A	
	REF: R 530,531,532,536,537,539,629,	
	REF: 630,631,728,729,730,734,735,736	
060-5362-0	RES,METAL FILM,5.36K OHM,1%,1/8W	EA B
	1.000000 EP 0 0 0.0 A	
	REF: R 420	
060-5902-0	RES,METAL FILM,5.9K OHM,1/8W,1%	EA B
	5.000000 EP 0 0 0.0 A	
	REF: R 1017,1021,1109,1211,1215	
060-5903-0	RES,METAL FILM,59.0K OHM,1/8W,1%	EA B

	3.000000 EP 0 0 0.0 A	
	REF: R 1036,1040,1112	
060-6493-0	RES,METAL FILM,64.9K,1/8W,1%	EA B
	5.000000 EP 0 0 0.0 A	
	REF: R 529,535,628,727,733	
060-6804-0	RES,METAL FILM,680K OHM,1/8W,1%	EA B
	6.000000 EP 0 0 0.0 A	
	REF: R 427,428,429,434,435,436	
060-6812-0	RES,METAL FILM,6.81K OHM,1/8W,1%	EA B
	5.000000 EP 0 0 0.0 AI A	
	REF: R 1003,1012,1103,1207,1208	
060-7502-0	RES,METAL FILM,7.5K OHM,1/8W,1%	EA B
	6.000000 EP 0 0 0.0 A	
	REF: R 1007,1013,1107,1128,1218,1219	
060-8253-0	RES,METAL FILM,82.5 K OHM,1/8W,1%	EA B
	2.000000 EP 0 0 0.0 A	
	REF: R 401,411	
060-9102-0	RES,METAL FILM,9.10K OHM,1/8W,1%	EA B
	3.000000 EP 0 0 0.0 AI A	
	REF: R 408,417,620	
060-9532-0	RES,METAL FILM,9.53K OHM,1/8W,1%	EA B
	5.000000 EP 0 0 0.0 A	
	REF: R 527,534,627,726,732	
060-9762-0	RES,METAL FILM,9.76K OHM,1/8W,1%	EA B
	3.000000 EP 0 0 0.0 A	
	REF: R 1031,1034,1121	
081-0102-0	EMI FILTER, RAD,1000PF	EA B
	26.000000 EP 0 0 0.0 A	
	REF: FIL 201,202,203,204,205,206,301	
	REF: 302,303,304,305,306,501,502,600	
	REF: 601,700,701,1001,1002,1101,1102,	
	REF: 1201,1202,1301,1302	
092-0007-0	JACK,RCAX4,HORIZ,GOLD,RD/WT	EA B
	7.000000 EP 0 0 0.0 A	
	REF: J 201,204,202,203,501,1001,1101	
093-0009-0	HDR,.1X5,VERT,MALE,LOCK	EA B
	1.000000 EP 0 0 0.0 A	
	REF: J 104	
093-0019-0	HDR,.1X2X8,VERT,SHROUDED	EA B
	1.000000 EP 0 0 0.0 A	
	REF: J 100	
093-2000-0	HDR,.1X2X10,VERT,MALE,SHROUDED	EA B
	2.000000 EP 0 0 0.0 A	
	REF: J 101,103	
093-2003-0	HDR,2MMX8,VERT,SHROUDED	EA B
	1.000000 EP 0 0 0.0 A	
	REF: J 102	
153-0105-0	LABEL,BLANK,.9"X.25"	EA B
	1.000000 EP 0 0 0.0 A	
HA145-0015-3	SIG 2.0 AUDIO I/O RAW PCB	EA B
	1.000000 EP 0 0 0.0 03 A	

63 COMPONENTS PRINTED

ASM: HA206-0012-0 SIG 2.0 CPU BOARD ASSY EA M

Gallien Part Number	Description
001-0004-0	4N26 OPTO-COUPLER SIX PIN 1.5KV EA B 1.000000 EP 0 0 0.0 A REF: U 302
002-0086-0	74HC86, EXCLUSIVE OR GATE,QUAD,2 IN EA B 1.000000 EP 0 0 0.0 A REF: U 310
002-0202-0	MAX202, INTRFC XCVR RS232 EA B 1.000000 EP 0 0 0.0 A REF: U 502
002-1008-0	74HC08 EA B 1.000000 EP 0 0 0.0 A REF: U 503
002-1138-0	74HC138 EA B 2.000000 EP 0 0 0.0 A REF: U 307,308
002-1139-0	74HC139N,DECODER,DUAL 2 TO 4 EA B 1.000000 EP 0 0 0.0 A REF: U 309
002-1541-1	74HC541, BUFFER, OCTAL TRISTATE EA B 3.000000 EP 0 0 0.0 A REF: U 411,412,413
002-1574-0	74HC574N TRI-STATE OCTAL D FLIP FLOP EA B 8.000000 EP 0 0 0.0 A REF: U 401,402,403,404,405,406,407, REF: 408
003-0020-4	EPROM,128KX8,120NS,27C010-12 EA B 1.000000 EP 0 0 0.0 2.4 A REF: U 305
003-0080-0	EPROM, SERIAL, 8K, 25080 EA B 1.000000 EP 0 0 0.0 A REF: U 501
003-0264-0	SRAM,8KX8,28PIN,600MIL,PLAST DIP EA B 1.000000 EP 0 0 0.0 A REF: U 306
003-1705-0	UP SUPERVISOR, 4.65V,UPS705 EA B 1.000000 EP 0 0 0.0 A REF: U 303
003-2180-0	MICROPROCESSOR,Z80180,10MHZ EA B 1.000000 EP 0 0 0.0 A REF: U 304
010-0002-0	2N3904 TRANS,NPN EA B 4.000000 EP 0 0 0.0 A REF: Q 501,503,506,507
010-1013-0	MPSA56 PNP 80V 500MA TO-92 EA B 3.000000 EP 0 0 0.0 0 A REF: Q 502,504,505
020-1000-0	1N4148 ,RECT-FAST,200MA,100V,4NS,DO-35 EA B 6.000000 EP 0 0 0.0 Al A REF: D 303,304,401,504,508 + REF: ECO#972601

020-2107-0 DIODE RECT 1A 1N4003 EA B
2.000000 EP 0 0 0.0 A
REF: D 501,502

024-0005-0 CRYSTALL, 18.432 MHZ,HC49 EA B
1.000000 EP 0 0 0.0 A
REF: X 301

030-2104-0 CAP,CER,AX,104,10%,50V,X7R EA B
38.000000 EP 0 0 0.0 AI A
REF: C 101,102,104,105,106,107,111,
REF: 112,115,116,119,120,121,122,123
REF: 126,127,128,130,132,133,134,135,
REF: 201,205,209,211,304,305,306,307,
REF: 401,503,504,505,506,507,118

030-2270-0 CAP,CER AXIAL,27 PF,10%,50V,NPO EA B
2.000000 EP 0 0 0.0 AI A
REF: C 301,302

030-4102-0 CAP,CER AXIAL,102,10%,100V,X7R EA B
2.000000 EP 0 0 0.0 A
REF: C 308,509

031-1227-0 CAP,ELEC,RAD,227,-10%+50%,25V EA B
2.000000 EP 0 0 0.0 0 A
REF: C 202,206

037-0106-0 CAP,TAN,RAD,106,10%,6.3V EA B
10.000000 EP 0 0 0.0 A
REF: C 138,140,141,142,143,144,145,
REF: 210,212 + ECO# 972601

050-1001-0 RES,CARBON FILM,100 OHM,1/8W,5% EA B
1.000000 EP 0 0 0.0 AI A
REF: R 306

050-1002-0 RES,CARBON FILM,1K OHM,1/8W,5% EA B
4.000000 EP 0 0 0.0 AI A
REF: R 507,511,514,515

050-1003-0 RES,CARBON FILM,10K OHM,1/8W,5% EA B
13.000000 EP 0 0 0.0 AI A
REF: R 305,309,310,408,501,503,504,
REF: 505,506,508,509,510,512

050-3904-0 RES,CARBON FILM,390K OHM,1/8W,5% EA B
3.000000 EP 0 0 0.0 AI A
REF: R 311,407,513

060-1213-0 RES,METAL FILM,12.1 K OHM,1/8W,1% EA B
1.000000 EP 0 0 0.0 A
REF: R 307

060-2212-0 RES,METAL FILM,2.21K OHM,1/8W,1% EA B
1.000000 EP 0 0 0.0 A
REF: R 308

081-0102-0 EMI FILTER, RAD,1000PF EA B
4.000000 EP 0 0 0.0 A
REF: FIL 201,202,203,502

081-0103-0 EMI FILTER, RAD, 103 EA B
7.000000 EP 0 0 0.0 A
REF: FIL 501,503,504,505,506,507,508

091-1004-0 POLY SWITCH,.2A EA B
2.000000 EP 0 0 0.0 A

	REF: F 501,502	
092-0013-0	CON,DSUB,9P,F,PC,HOR	EA B
	1.000000 EP 0 0 0.0	A
	REF: P 501	
092-0021-0	JACK,PHONE,3.5MM,MONO SB	EA B
	3.000000 EP 0 0 0.0	A
	REF: J 501,502,503	
093-0009-0	HDR,.1X5,VERT,MALE,LOCK	EA B
	1.000000 EP 0 0 0.0	A
	REF: P 201	
093-0039-0	HDR,.1X2X5,VERT,MALE,SHROUDED	EA B
	1.000000 EP 0 0 0.0	A
	REF: P 203	
093-2000-0	HDR,.1X2X10,VERT,MALE,SHROUDED	EA B
	4.000000 EP 0 0 0.0	A
	REF: P 204,205,206,207	
093-2001-0	HDR,2MMX11,POL,SHROUDED,	EA B
	1.000000 EP 0 0 0.0	A
	REF: P 211	
093-2004-0	HDR,2MMX9,VERT,SHROUDED	EA B
	1.000000 EP 0 0 0.0	A
	REF: P 200	
094-0003-0	SKT,DIP,.6X32,MPTST	EA B
	1.000000 EP 0 0 0.0	A
	REF: U 305	
094-0005-0	SKT,PLCC,TST,68PIN	EA B
	1.000000 EP 0 0 0.0	A
	REF: U 304	
100-0104-0	BRACKET,.25X.25,KEYSTONE,#621	EA B
	1.000000 EP 0 0 0.0	A
111-0041-0	BOLT,4-40,1/4,PHP,CAD	EA B
	1.000000 EP 0 0 0.0 0	A
153-0105-0	LABEL,BLANK,.9"X.25"	EA B
	1.000000 EP 0 0 0.0	A
HA145-0012-0	SIG 2.0 CPU RAW PCB	EA B
	1.000000 EP 0 0 0.0 00	A

45 COMPONENTS PRINTED

1 ASSEMBLIES PRINTED

ASM: HA206-0013-1 SIG 2.0 DSP BOARD ASSY REV 01 EA M

Gallien Part Number	Description
001-1078-0	MC33078D DUAL LOW NOISE OP AMP EA B
	4.000000 EP 0 0 0.0 A
	REF: U 11,12,13,14
001-3173-0	TORX173,FIBER OPTICS RECEIVING MODULE EA B
	2.000000 EP 0 0 0.0 A
	REF: U 9,10
001-3251-0	QS3251Q,MUX/DEMUX QUICK SWITCH 8 EA B
	1.000000 EP 0 0 0.0 A
	REF: U 8
002-0237-0	QS74FCT2373TQ,LATCH 8BIT WITH OUTPUT RES EA B
	1.000000 EP 0 0 0.0 A
	REF: U 2
003-2226-0	SURROUND SOUND 20 BIT CODEC EA B
	1.000000 EP 0 0 0.0 A
	REF: U 15
003-2560-0	DSPF56009FJ81 DSP PROCESSOR EA B
	1.000000 EP 0 0 0.0 A
	REF: U 6
003-2B16-0	MICROCONTROLLER,N80C251SB16 EA B
	1.000000 EP 0 0 0.0 A
	REF: U 3
003-3003-A	PAL EA B
	1.000000 EP 0 0 0.0 A
	REF: U 5
003-4004-A	EPROM,256 KILOBIT CMOS OTP EA B
	1.000000 EP 0 0 0.0 A
	REF: U 1
014-0071-0	LM7805CT 5V REG 1A TO-220 EA B
	1.000000 EP 0 0 0.0 0 A
	REF: U 7
024-0001-0	CLOCK OSCILLATOR (HALF SIZE) 12.288 MHZ EA B
	1.000000 EP 0 0 0.0 A
	REF: U 4
031-0106-1	CAP,ELEC,RAD,106,20%,25V,NP EA B
	1.000000 EP 0 0 0.0 A
	REF: ECO # 972062
031-0108-0	CAP,ELEC,RAD,108,-10%+50%,16V EA B
	1.000000 EP 0 0 0.0 0 A
	REF: ECO # 972062
040-2101-0	CAP,CER,101,5%,50V,NPO,1206,SMT EA B
	2.000000 EP 0 0 0.0 A
	REF: C 57,63
040-2103-0	CAP,CER,103,X7R,50V,1206 EA B
	49.000000 EP 0 0 0.0 A
	REF: C 2,3,4,6,7,8,9,10,11,12,13,14
	REF: 15,16,17,18,19,21,22,24,26,27,28
	REF: 30,31,32,33,34,35,38,39,44,45,53
040-2103-0	CAP,CER,103,X7R,50V,1206 EA B
	49.000000 EP 0 0 0.0 A
	REF: 54,59,60,67,68,81,82,83,84,85,86

	REF: 87,88,89,90	
040-2222-0	CAP,CER,222,10%,50V,X7R,1206,SMT	EA B
	1.000000 EP 0 0 0.0 A	
	REF: C 71	
040-2270-1	CAP,CER,27,20%,50V,X7R,1026,SMT	EA B
	1.000000 EP 0 0 0.0 A	
	REF: C 5	
040-2271-0	CAP CER,271,X7R,50V,1206	EA B
	6.000000 EP 0 0 0.0 A	
	REF: C 42,43,50,51,58,65	
040-2331-0	CAP,CER,331,X7R,50V,1206	EA B
	5.000000 EP 0 0 0.0 A	
	REF: C 72,73,74,75,76	
040-2681-0	CAP,CERAMIC,681,5%,50V,Z5U,1206,SMT	EA B
	6.000000 EP 0 0 0.0 A	
	REF: C 36,37,46,47,52,61	
047-0105-0	CAP,TANT,105,20%,16V,A CASE,SMT	EA B
	4.000000 EP 0 0 0.0 A	
	REF: C 1,66,70,77	
047-0106-1	CAP,TANT,106,20%,6.3V,C CASE,SMT	EA B
	14.000000 EP 0 0 0.0 A	
	REF: C 23,29,40,41,48,49,55,56,62,64,	
	REF: 69,78,79,80	
047-1105-0	CAP,TANT,105,20%,25V,A CASE,3216	EA B
	2.000000 EP 0 0 0.0 A	
	REF: C 20,25	
051-0200-0	RES,CARBON FILM,2 OHM,1/4W,5%	EA B
	1.000000 EP 0 0 0.0 A	
	REF: ECO # 972062	
062-0000-0	RES,CF,0 OHM,1/8W,5%,1206,SMT	EA B
	1.000000 EP 0 0 0.0 A	
	REF: R 44	
063-1372-0	RES,METAL FILM,13.7K OHM,1/8W,1%,1206	EA B
	7.000000 EP 0 0 0.0 A	
	REF: R 16,18,22,24,29,34,43	
063-1501-0	RES,METAL FILM,150 OHM,1/8W,1%,1206	EA B
	13.000000 EP 0 0 0.0 A	
	REF: R 1,2,4,5,6,7,8,9,10,38,39,40,41	
063-2003-0	RES,METAL FILM,20K OHM,1/8W,1%,1206	EA B
	2.000000 EP 0 0 0.0 A	
	REF: R 27,32	
063-5622-0	RES,METAL FILM,5.62K OHM,1/8W,1%,1206	EA B
	6.000000 EP 0 0 0.0 A	
	REF: R 15,17,21,23,28,33	
063-5623-0	RES,METAL FILM,56.2K OHM,1/8W,1%,1206	EA B
	6.000000 EP 0 0 0.0 A	
	REF: R 19,20,25,26,30,36	
063-7500-0	RES,METAL FILM,75 OHM,1/8W,1%,1206	EA B
	5.000000 EP 0 0 0.0 A	
	REF: R 3,11,12,13,14	
063-7503-0	RES,METAL FILM,75K OHM,1/8W,1%,1206	EA B
	1.000000 EP 0 0 0.0 A	
	REF: R 42	

081-0011-0	INDUCTOR,AX,HIQ,820UH						EA	B	
	1.000000	EP	0	0	0.0		A		
	REF: ECO # 970262								
085-0106-0	FERRITE,SMT,3216					EA	B		
	1.000000	EP	0	0	0.0		A		
	REF: L 4								
085-0106-1	FERRITE,SMT,4532					EA	B		
	5.000000	EP	0	0	0.0		A		
	REF: L 5,6,7,8,9								
085-0336-0	INDUCTOR,SMT,33 UH,1206						EA	B	
	1.000000	EP	0	0	0.0		A		
092-0020-0	JACK,RCAX4,H,PC,GOLD						EA	B	
	1.000000	EP	0	0	0.0		A		
093-0010-0	HDR,.1X5,HORIZ,POL,LOCK RAMP						EA	B	
	1.000000	EP	0	0	0.0		A		
	REF: P 3								
093-0019-0	HDR,.1X2X8,VERT,SHROUDED						EA	B	
	1.000000	EP	0	0	0.0		A		
	REF: P 4								
093-0039-0	HDR,.1X2X5,VERT,MALE,SHROUDED						EA	B	
	1.000000	EP	0	0	0.0		A		
	REF: P 1								
093-0041-0	HDR,.1X2X10,VERT,MALE						EA	B	
	1.000000	EP	0	0	0.0		A		
	REF: P 5								
094-0073-0	SKT,PLCC,SMTX32,RECT						EA	B	
	1.000000	EP	0	0	0.0		A		
	REF: U 1								
095-0500-0	WIRE,14GA,BLACK,600V						FT	B	
	0.167000	EP	0	0	0.0	0	A		
100-0104-0	BRACKET,.25X.25,KEYSTONE,#621						EA	B	
	1.000000	EP	0	0	0.0		A		
111-0041-0	BOLT,4-40,1/4,PHP,CAD					EA	B		
	1.000000	EP	0	0	0.0	0	A		
153-0105-0	LABEL,BLANK,.9"X.25"					EA	B		
	1.000000	EP	0	0	0.0		A		
HA145-0013-0	SIG 2.0 DSP RAW PCB,REV 01						EA	B	
	1.000000	EP	0	0	0.0	01	A		

47 COMPONENTS PRINTED

1 ASSEMBLIES PRINTED

ASM: HA206-0016-0 SIG 2.0 BUTTON LOGO PANEL BOARD ASSY EA M

Gallien Part Number	Description
010-0002-0	2N3904 TRANS,NPN EA B 1.000000 EP 0 0 0.0 A REF: Q 201
010-1000-0	2N3906 PNP 40V 100MA TO-92 EA B 2.000000 EP 0 0 0.0 0 A REF: Q 202,501
025-0003-0	IR RECEIVER,38KHZ,W/CLIP,TFMT 5380 EA B 1.000000 EP 0 0 0.0 A REF: U 501
025-0024-0	LED,AMBER,T1,580NM EA B 1.000000 EP 0 0 0.0 A REF: D 201
025-0030-0	LED,BLUE,T1,.190,470NM,SMALL EA B 9.000000 EP 0 0 0.0 A REF: D 202,203,204,205,206,207,208, REF: 209,210
030-2104-0	CAP,CER,AX,104,10%,50V,X7R EA B 3.000000 EP 0 0 0.0 AI A REF: C 502,504,506
031-1476-0	CAP,ELEC,RAD,476,20%,25V EA B 2.000000 EP 0 0 0.0 A REF: C 501,503
038-0336-0	CAP,ELEC,AXIAL TR,336,20%,25V EA B 1.000000 EP 0 0 0.0 AI A REF: C 505
050-1003-0	RES,CARBON FILM,10K OHM,1/8W,5% EA B 8.000000 EP 0 0 0.0 AI A REF: R 501,203,204,205,207,208,209, REF: 210
050-1501-0	RES,CARBON FILM,150 OHM,1/8W,5% EA B 1.000000 EP 0 0 0.0 AI A REF: R 206
050-3001-0	RES,CARBON FILM,300 OHM,1/8W,5% EA B 1.000000 EP 0 0 0.0 A REF: R 502
050-6801-0	RES,CARBON FILM,680 OHM,1/8W,5% EA B 1.000000 EP 0 0 0.0 AI A REF: R 202
058-1003-0	RES,SIP 10K OHMS X 9 EA B 1.000000 EP 0 0 0.0 0 A REF: R 201
081-0004-0	INDUCTOR,100UH EA B 2.000000 EP 0 0 0.0 A REF: L 501,502
090-0007-0	SWITCH,8A/128A,250V,PP,PCB EA B 1.000000 EP 0 0 0.0 A REF: SW 101
090-0040-0	SWITCH PC SPST MOM TL2101 EA B 8.000000 EP 0 0 0.0 A REF: SW 201,202,203,204,205,206,207

	REF: SW 201 (STANDBY BOARD)	
090-1001-0	ENCODER,ROTARY,VPCMNT, 24 POS	EA B
	1.000000 EP 0 0 0.0 A	
	REF: SW 301	
092-0066-0	FASTON,M,PC,.250"	EA B
	2.000000 EP 0 0 0.0 A	
	REF: P 101,102	
093-0010-0	HDR,.1X5,HORIZ,POL,LOCK RAMP	EA B
	1.000000 EP 0 0 0.0 A	
	REF: P 202	
093-0044-0	HDR,2MMX3,HORIZ,MALE,LOCK	EA B
	4.000000 EP 0 0 0.0 A	
	REF: P 201,203,204,301	
093-2000-0	HDR,.1X2X10,VERT,MALE,SHROUDED	EA B
	1.000000 EP 0 0 0.0 A	
	REF: P 501	
093-2001-0	HDR,2MMX11,POL,SHROUDED,	EA B
	1.000000 EP 0 0 0.0 A	
	REF: P 201 (BUTTON LOGO BOARD)	
094-0002-0	SKT,STRIP,TST,2X7,HORIZ	EA B
	1.000000 EP 0 0 0.0 A	
	REF: P 502	
100-0121-0	SPACER,LED,NYLON,0.250"X0.187"	EA B
	10.000000 EP 0 0 0.0 A	
	REF: D 201,202,203,204,205,206,207,	
	REF: 208,209,210	
153-0105-0	LABEL,BLANK,.9"X.25"	EA B
	1.000000 EP 0 0 0.0 A	
HA145-0016-A	SIG 2.0 BUTTON LOGO PANEL RAW PCB	EA B
	1.000000 EP 0 0 0.0 00 A	
	REF: the panel consists of 5 boards:	
	REF: HA145-0005-0 Pwr switch board	
	REF: HA145-0007-0 VFD/IR board	
	REF: HA145-0008-0 Standby board	
	REF: HA145-0009-0 Button logo board	
	REF: HA145-0010-0 Rotary ecoder board	

26 COMPONENTS PRINTED

1 ASSEMBLIES PRINTED

ASM: HA302-1020-A SIG 2.0 230V

Gallien Part Number	Description
014-0031-0	LM7815 +15V REG 1A TO-220 1.000000 EP 0 0 0.0 0 REF: U 204
014-0071-0	LM7805CT 5V REG 1A TO-220 3.000000 EP 0 0 0.0 0 REF: U 201,202,203
014-1001-0	VOLTAGE REGULATOR,TO-220 IN,-5V,7905 1.000000 EP 0 0 0.0 REF: U 208
014-1032-0	LM7915 -15V REG 1A TO-220 1.000000 EP 0 0 0.0 0 REF: U 206
025-1000-0	DISPLAY,VF 1.000000 EP 0 0 0.0
080-0032-2	TRANSFORMER SIG 2.0,10V@2.2A,230V 1.000000 EP 0 0 0.0 02
080-0033-2	TRANSFORMER SIG 2.0,36V@1.1A,230V 1.000000 EP 0 0 0.0 02
091-0032-0	FUSE,5MM,400MA,250V,SLB,SEMKO/VDE 1.000000 EP 0 0 0.0
091-0039-0	FUSE,5MM,315MA,250V,SLB,UL/CSA/SEMKO 1.000000 EP 0 0 0.0 REF: F 102
093-0003-1	HDR,.1X2X7,HORIZ,MALE 1.000000 EP 0 0 0.0 REF: VFD HEADER
093-0066-0	SHUNT .1",TIN,2 POS, 1.000000 EP 0 0 0.0 0
094-0019-0	LUG,#6,SOLDER 1.000000 EP 0 0 0.0 0
095-0007-0	CORD,2X.75MM,2.5A/250V,FLAT,8FT,EXP 1.000000 EP 0 0 0.0
095-0500-0	WIRE,14GA,BLACK,600V 0.700000 EP 0 0 0.0 0
096-0000-0	AAA ALKALINE BATTERY 2.000000 EP 0 0 0.0
100-0007-0	SIG 2.0, WINDOW 1.000000 EP 0 0 0.0
100-0011-0	STRAIN RELIEF,SPT-2,UL,CSA 1.000000 EP 0 0 0.0
100-0033-0	CABLE TIE - PLT 1M-M,SMALL 12.000000 EP 0 0 0.0 0
100-0121-0	SPACER,LED,NYLON,0.250"X0.187" 6.000000 EP 0 0 0.0
100-0126-0	HOLDER,CABLE TIE .75" SQUARE,ADHESIVE BK 2.000000 EP 0 0 0.0
101-0002-0	FOOT BLACK ANODIZED/RUBBER GASKET 4.000000 EP 0 0 0.0
102-0000-0	BUTTON, LARGE,CIT 7.0 1.000000 EP 0 0 0.0

102-0001-0	BUTTON, SMALL, CIT 7.0
	7.000000 EP 0 0 0.0
102-0002-0	KNOB,2',ALUM CAP,BLACK,UNMARKED
	1.000000 EP 0 0 0.0
102-0003-0	BUTTON CAP, LOUDNESS, H/K
	1.000000 EP 0 0 0.0
105-0001-0	INSULATOR TAPE,1"X7MIL ADHESIVE BACK
	0.500000 EP 0 0 0.0 0
111-0051-0	BOLT,4-40,5/16,PHP,CAD
	2.000000 EP 0 0 0.0 0
111-0061-0	BOLT,4-40,3/8,PHP,CAD
	1.000000 EP 0 0 0.0 0
111-1040-1	BOLT,4-40,1/4UFHP,BZ,UNDERCUT FLAT
	3.000000 EP 0 0 0.0
111-2041-0	BOLT,4-40,1/4,PHP,INT STAR WSHR,ZINC
	4.000000 EP 0 0 0.0 0
111-2080-0	BOLT,4-40,1/4,ZINC
	2.000000 EP 0 0 0.0 0
111-3080-0	SCREW,4AB,1/2,PHP,B.Z.
	13.000000 EP 0 0 0.0 0
111-6001-0	NUT,4-40,KEP SMALL
	1.000000 EP 0 0 0.0 0
111-7011-0	WASHER,#4,SPLIT
	2.000000 EP 0 0 0.0 0
111-8061-0	TR-BOLT,4-40,3/8,PHP,CAD
	6.000000 EP 0 0 0.0 0
111-8101-0	TR-BOLT,4-40,5/8,PHP,CAD
	6.000000 EP 0 0 0.0 0
112-0040-0	BOLT,6-32,1/4,PHP,ZINC
	32.000000 EP 0 0 0.0
112-0081-0	BOLT,6-32,1/2,PHP,CAD
	4.000000 EP 0 0 0.0 0
112-6001-0	NUT,6-32,KEP LARGE,CAD
	6.000000 EP 0 0 0.0 0
112-6015-0	STANDOFF,6-32X22/16,NYLON
	3.000000 EP 0 0 0.0
112-8040-0	TR-BOLT,6-32,1/4,PHP,B.Z.
	24.000000 EP 0 0 0.0 PP
112-8041-0	TR-BOLT,6-32,1/4",PHP,ZINC
	1.000000 EP 0 0 0.0
119-6000-0	NUT,M9X.75MM,PANEL ZNC
	1.000000 EP 0 0 0.0
119-7000-0	WASHER,M9,ZNC,FLAT
	1.000000 EP 0 0 0.0
150-0023-0	BAG,POLY 10 X 16 1 1/2 MILL
	2.000000 EP 0 0 0.0 0
150-0099-0	BAG,POLY 24"X24"X2MIL ANTISTATIC
	1.000000 EP 0 0 0.0 0
153-0000-0	TIE WRAP,BLACK
	1.000000 EP 0 0 0.0
153-0100-2	SAFTEY LABEL(RISK OF FIRE),ENGL/FREN
	1.000000 EP 0 0 0.0
153-0101-0	LABEL,SERIAL #,SIGNATURE 2.0

	1.000000 EP 0 0 0.0
153-0103-0	LABEL,CE,PRODUCT
	1.000000 EP 0 0 0.0
153-0104-0	LABEL,CE,OUTER PACKING
	1.000000 EP 0 0 0.0
160-0005-0	GROUNDING SAFETY SHEET
	1.000000 EP 0 0 0.0 0
HA080-0001-0	XFORMER,FM MATCHING,230V SIG 2.0
	1.000000 EP 0 0 0.0
HA130-0000-0	OVERLAY,SIG 2.0 REMOTE CONTROL OVERLAY
	1.000000 EP 0 0 0.0
HA132-0017-0	SIG 2.0,HEAT SINK
	1.000000 EP 0 0 0.0 00
HA132-0018-3	SIG 2.0 CHASSIS
	1.000000 EP 0 0 0.0 03
HA132-0019-0	SIG 2.0,TOP COVER
	1.000000 EP 0 0 0.0 00
HA132-0020-A	SIG 2.0 FRONT PANEL
	1.000000 EP 0 0 0.0 04
HA132-0021-A	LOGO,SIGNATURE SERIES,ACRYLIC
	1.000000 EP 0 0 0.0
HA132-0022-6	SIG 2.0,SUBCHASSIS
	1.000000 EP 0 0 0.0 06
HA132-0023-0	SIG 2.0,VOLUME MOUNTING BRACKET
	1.000000 EP 0 0 0.0 00
HA132-0024-1	SIG 2.0 SHIELD TRANSFORMER
	1.000000 EP 0 0 0.0 01
HA132-0025-0	SIG 2.0,HOUSING TRANSFORMER
	1.000000 EP 0 0 0.0 00
HA150-0002-A	SIG 2.0 CARTON
	1.000000 EP 0 0 0.0
HA151-0003-A	SIG 2.0 FOAM PACK
	1.000000 EP 0 0 0.0
HA151-0005-0	SIG 2.0,PAD,LARGE
	2.000000 EP 0 0 0.0
HA151-0006-0	SIG 2.0,PAD,SMALL
	2.000000 EP 0 0 0.0
HA153-0100-0	LABEL,TRANSFORMER,SIG 2.0
	2.000000 EP 0 0 0.0
HA153-0101-0	LABEL,REAR CHASSIS 230V,SIG 2.0
	1.000000 EP 0 0 0.0
HA153-0103-0	LABEL,UPC,230V,SIG 2.0
	2.000000 EP 0 0 0.0
HA153-0105-0	LABEL,FUSE RATING,SIG 2.0,230V
	1.000000 EP 0 0 0.0 A
HA160-0007-A	SIG 2.0/230V OWNER'S MANUAL
	1.000000 EP 0 0 0.0 A
HA202-0000-0	WIRE ASSY,26GA,YEL,17",11PIN
	1.000000 EP 0 0 0.0 00
HA202-0001-0	WIRE ASSY,26GA,BLU,3",3PIN
	2.000000 EP 0 0 0.0 00
HA202-0002-0	WIRE ASSY,26GA,ORG,17",9PIN
	1.000000 EP 0 0 0.0 00

HA202-0100-0	WIRE ASSY,22GA,GRN,5",5PIN
	1.000000 EP 0 0 0.0 00
HA202-0101-0	WIRE ASSY,22GA,BLK,12",5PIN
	1.000000 EP 0 0 0.0 00
HA202-0102-0	WIRE ASSY,22GA,BRN,12",5PIN
	1.000000 EP 0 0 0.0 00
HA202-0103-0	WIRE ASSY,22GA,RED,15",5PIN
	1.000000 EP 0 0 0.0 00
HA202-0104-0	WIRE ASSY,22GA,PUR,18",5PIN
	1.000000 EP 0 0 0.0 00
HA202-0105-0	WIRE ASSY,22GA,GRY,7",8PIN
	1.000000 EP 0 0 0.0 00
HA202-0106-0	WIRE ASSY,18GA,BLK,6"
	1.000000 EP 0 0 0.0 01
HA202-0107-0	WIRE ASSY,22GA,BLK,10,SPEAKER
	1.000000 EP 0 0 0.0
HA202-0300-0	WIRE ASSY,14GA,GRN,6"
	1.000000 EP 0 0 0.0 01
HA202-0301-0	WIRE ASSY,16GA,RED,8"
	2.000000 EP 0 0 0.0 00
HA202-0500-0	RIBBON ASSY,28GA,F-F,8",10PIN
	1.000000 EP 0 0 0.0 00
HA202-0501-0	RIBBON ASSY,28GA,F-F,9",16PIN
	1.000000 EP 0 0 0.0 00
HA202-0502-0	RIBBON ASSY,28GA,F-F,11",20PIN
	2.000000 EP 0 0 0.0 00
HA202-0503-0	RIBBON ASSY,28GA,F-F,5",20PIN
	1.000000 EP 0 0 0.0 00
HA202-0504-0	RIBBON ASSY,28GA,F-F,15",20PIN
	1.000000 EP 0 0 0.0 00
HA205-2000-0	SIG 2.0 AM ANTENNA LOOP
	1.000000 EP 0 0 0.0
HA205-2001-0	SIG 2.0 FM DIPOLE ANTENNA
	1.000000 EP 0 0 0.0
HA206-0006-1	SIG 2.0 POWER SUPPLY BOARD ASSY REV 01
	1.000000 EP 0 0 0.0 01
HA206-0011-2	SIG 2.0 VIDEO BOARD ASSY REV02
	1.000000 EP 0 0 0.0 02
HA206-0012-0	SIG 2.0 CPU BOARD ASSY
	1.000000 EP 0 0 0.0 00
HA206-0013-1	SIG 2.0 DSP BOARD ASSY REV 01
	1.000000 EP 0 0 0.0 01
HA206-0014-A	SIG 2.0 TUNER BOARD ASY EUR
	1.000000 EP 0 0 0.0 A
HA206-0015-3	SIG 2.0 AUDIO BOARD ASY,REV03
	1.000000 EP 0 0 0.0 03
HA206-0016-0	SIG 2.0 BUTTON LOGO PANEL BOARD ASSY
	1.000000 EP 0 0 0.0 00
	REF: the board cosists of 5 parts
	REF: HA206-0005-0 Pwr Switch Assy
	REF: HA206-0007-0 VFD/IR Assy
	REF: HA206-0008-0 Standby Assy
	REF: HA206-0009-0 Button logo Assy

	REF: HA206-0010-0 Rotary Encoder
HA304-0000-0	SIG 2.0 REMOTE CONTROL IR
	1.000000 EP 0 0 0.0

100 COMPONENTS PRINTED

ASM: HA206-0006-1 SIG 2.0 POWER SUPPLY BOARD ASSY REV 01 EA M

Gallien Part Number	Description
010-0002-0	2N3904 TRANS,NPN EA B 1.000000 EP 0 0 0.0 A REF: Q 202
010-0012-0	MPSA06 NPN 80V 500MA TO-92 EA B 1.000000 EP 0 0 0.0 0 A REF: Q 101
011-1117-0	TIP117 PNP 100V 2A TO-220 EA B 1.000000 EP 0 0 0.0 A REF: Q 203
014-0003-0	78L06,VOLTAGE REGULATOR,+6V,TO-92 EA B 1.000000 EP 0 0 0.0 A REF: U 205
014-1002-0	79L06,VOLTAGE REGULATOR,TO-92,-6V EA B 1.000000 EP 0 0 0.0 A REF: U 207
020-1121-0	DIODE RECT 3A 1N5402 EA B 8.000000 EP 0 0 0.0 A REF: D 203,204,205,206,209,210,211, REF: 212
020-2107-0	DIODE RECT 1A 1N4003 EA B 9.000000 EP 0 0 0.0 A REF: D 101,202,207,208,213,214,215, REF: 216,217
022-0070-0	MOV,RAD DISC,14MM,250V EA B 1.000000 EP 0 0 0.0 A REF: MOV 101
030-2104-0	CAP,CER,AX,104,10%,50V,X7R EA B 18.000000 EP 0 0 0.0 AI A REF: C 101,102,201,202,206,207,209 REF: 210,213,214,216,217,220,221,223 REF: 224,226,227
031-1476-0	CAP,ELEC,RAD,476,20%,25V EA B 7.000000 EP 0 0 0.0 A REF: C 203,208,211,215,222,228,229
031-2106-0	CAP,ELEC,RAD,106,-10%+50%,50V EA B 4.000000 EP 0 0 0.0 0 A REF: C 218,225,230,231
031-2338-0	CAP,ELEC,RAD,338,20%,35V EA B 4.000000 EP 0 0 0.0 A REF: C 204,205,212,219
032-7104-0	CAP,PE,104,20%,250V EA B 2.000000 EP 0 0 0.0 0 A REF: C 232,233
050-0000-0	RES,METAL WIRE,0 OHM,1/8W EA B 2.000000 EP 0 0 0.0 AI A REF: R 104,105
050-1003-0	RES,CARBON FILM,10K OHM,1/8W,5% EA B 3.000000 EP 0 0 0.0 AI A REF: R 102,203,205
050-2002-0	RES,CARBON FILM,2K OHM,1/8W,5% EA B

	2.000000 EP 0 0 0.0 A	
	REF: R 103,204	
053-8205-0	RES,CARBON FILM,8.2 M OHM,1/2W,5%	EA B
	1.000000 EP 0 0 0.0 A	
	REF: R 101	
057-3300-0	RES,WIRE WOUND,33 OHM,10W,5%	EA B
	2.000000 EP 0 0 0.0 A	
	REF: R 206,207	
081-0005-0	FERRITE BEAD,AX, TYPE39	EA B
	2.000000 EP 0 0 0.0 A	
	REF: FB 101,102	
084-0003-0	RELAY, PC NPSS TYPE 1,5V	EA B
	1.000000 EP 0 0 0.0 A	
	REF: K 101	
092-0024-0	FASTON,M,PC,.187"	EA B
	1.000000 EP 0 0 0.0 A	
	REF: J 101	
092-0066-0	FASTON,M,PC,.250"	EA B
	8.000000 EP 0 0 0.0 A	
	REF: J 102,103,104,105,106,107,201,	
	REF: 202	
093-0009-0	HDR,.1X5,VERT,MALE,LOCK	EA B
	7.000000 EP 0 0 0.0 A	
	REF: P 101,102,103,104,105,201,202	
094-0004-1	FUSE CLIP, 5MM PC MNT,111-501	EA B
	4.000000 EP 0 0 0.0 A	
153-0105-0	LABEL,BLANK,.9"X.25"	EA B
	1.000000 EP 0 0 0.0 A	
HA145-0006-0	SIG 2.0 POWER SUPPLY BOARD,REV 01	EA B
	1.000000 EP 0 0 0.0 01 A	

26 COMPONENTS PRINTED

1 ASSEMBLIES PRINTED

ASM: HA206-0011-2 SIG 2.0 VIDEO BOARD ASSY REV02 EA M

Gallien Part Number	Description
001-1030-1	TL072CP, LOW NOISE JFET OPAMP EA B
	2.000000 EP 0 0 0.0 A
	REF: U 502,602
002-0053-0	HC4053, ANALOG SWITCH TRPL, 2 TO 1 EA B
	4.000000 EP 0 0 0.0 A
	REF: U 401,402,503,701
002-0054-0	HC4052, ANALOG SWITCH DUAL 4 TO 1 EA B
	2.000000 EP 0 0 0.0 A
	REF: U 802,901
002-0055-0	HC4051, ANALOG SWITCH SNGL 8 TO 1 EA B
	2.000000 EP 0 0 0.0 A
	REF: U 301,302
003-0581-0	EL4581CS,VIDEO SYNC SEPARATOR EA B
	1.000000 EP 0 0 0.0 A
	REF: U 601
003-1075-0	MB90075,OSD,S-VIDEO EA B
	1.000000 EP 0 0 0.0 A
	REF: U 702
010-0002-0	2N3904 TRANS,NPN EA B
	5.000000 EP 0 0 0.0 A
	REF: Q 601,603,701,702.703
010-1000-0	2N3906 PNP 40V 100MA TO-92 EA B
	1.000000 EP 0 0 0.0 0 A
	REF: Q 602
010-1004-0	OPAMP,DUAL VIDEO,MC14576 EA B
	5.000000 EP 0 0 0.0 A
	REF: U 303,403,501,805,903
020-1000-0	1N4148 ,RECT-FAST,200MA,100V,4NS,DO-35 EA B
	1.000000 EP 0 0 0.0 AI A
	REF: D 701
024-0002-0	CRYSTAL, 14.31818 MHZ, HC49S EA B
	1.000000 EP 0 0 0.0 A
	REF: X 702
024-0003-0	CRYSTAL, 17.734475 MHZ, HC49S EA B
	1.000000 EP 0 0 0.0 A
	REF: X 701
030-2103-0	CAP,CER,AX,103,10%,50V,X7R EA B
	2.000000 EP 0 0 0.0 AI A
	REF: C 502,503
030-2104-1	CAP,CER AX,104,50V,20%,Z5U EA B
	3 7.000000 EP 0 0 0.0 A
	REF: C 150,151,153,154,304,306,313,
	REF: 315,401,402,405,506,508,511,512
	REF: 602,603,604,605,606,701,702,704
	REF: 705,706,713,811,813,815,816,818
	REF: 901,906,908,910,501,509
030-2270-0	CAP,CER AXIAL,27 PF,10%,50V,NPO EA B
	3.000000 EP 0 0 0.0 AI A
	REF: C 708,709,710
030-4101-0	CAP,CER AXIAL,101,5%,100 V,COG EA B

		1.000000	EP	0	0	0.0		A	
		REF: C 712							
030-4471-0		CAP,CER AXIAL,471,5%,100V,X7R						EA	B
		1.000000	EP	0	0	0.0		A	
		REF: C 601							
031-0106-1		CAP,ELEC,RAD,106,20%,25V,NP						EA	B
		4.000000	EP	0	0	0.0		A	
		REF: C 302,407,812,902							
031-1227-0		CAP,ELEC,RAD,227,-10%+50%,25V						EA	B
		2.000000	EP	0	0	0.0 0		A	
		REF: C 314,316							
031-2106-0		CAP,ELEC,RAD,106,-10%+50%,50V						EA	B
	1	5.000000	EP	0	0	0.0 0		A	
		REF: C 301,303,307,308,309,312,403							
		REF: 404,505,507,703,814,817,907,909							
036-2105-0		CAP,PE,RAD,105,5%,50V						EA	B
		3.000000	EP	0	0	0.0		A	
		REF: C 504,510,610							
050-0000-0		RES,METAL WIRE,0 OHM,1/8W						EA	B
		4.000000	EP	0	0	0.0	AI	A	
		REF: R 312,319,320,902							
050-0101-0		RES,CARBON FILM,10 OHM,1/8W,5%						EA	B
	1	2.000000	EP	0	0	0.0	AI	A	
		REF: R 308,311,404,406,502,504,506,							
		REF: 507,819,822,916,917							
050-1001-0		RES,CARBON FILM,100 OHM,1/8W,5%						EA	B
	1	5.000000	EP	0	0	0.0	AI	A	
		REF: R 101,102,103,104,307,313,314,							
		REF: 318,510,511,704,817,820,907,910							
050-2002-0		RES,CARBON FILM,2K OHM,1/8W,5%						EA	B
		1.000000	EP	0	0	0.0		A	
		REF: R 608							
050-2702-0		RES,CARBON FILM,2.7K OHM,1/8W,5%						EA	B
		1.000000	EP	0	0	0.0	AI	A	
		REF: R 612							
050-3305-0		RES,CARBON FILM,3.3M OHM,1/8W,5%						EA	B
		5.000000	EP	0	0	0.0		A	
		REF: R 512,513,836,837,918							
050-4701-0		RES,CARBON FILM,470 OHM,1/8W,5%						EA	B
		4.000000	EP	0	0	0.0	AI	A	
		REF: R 606,705,706,707							
050-6801-0		RES,CARBON FILM,680 OHM,1/8W,5%						EA	B
		1.000000	EP	0	0	0.0	AI	A	
		REF: R 601							
050-7500-0		RES,CARBON FILM,75 OHM,1/8W,5%						EA	B
	1	6.000000	EP	0	0	0.0		A	
		REF: R 301,302,303,304,305,306,309,							
		REF: 401,402,407,409,412,413,823,825							
		REF: 913							
060-1002-0		RES,METAL FILM,1.00K,1/8W,1%						EA	B
		6.000000	EP	0	0	0.0	AI	A	
		REF: R 610,903,904,905,906							
		REF: + Harman ECO # 973232							

060-1003-0 RES,METAL FILM,10.0K OHM,1/8W,1% EA B
1 2.000000 EP 0 0 0.0 AI A
REF: R 310,403,405,501,503,508,609,
REF: 613,702,821,818,908

060-1004-0 RES,METAL FILM,100K,1/8W,1% EA B
1.000000 EP 0 0 0.0 AI A
REF: R 605

060-1302-0 RES,METAL FILM,1.3 KOHM,1/8W,1% EA B
1.000000 EP 0 0 0.0 A
REF: R 604

060-3322-0 RES,METAL FILM, 3.32 K OHM,1/8W,1% EA B
2.000000 EP 0 0 0.0 A
REF: R 603,607

060-4992-0 RES,METAL FILM,4.99K OHM,1/8W,1% EA B
2.000000 EP 0 0 0.0 AI A
REF: R 505,509

060-6804-0 RES,METAL FILM,680K OHM,1/8W,1% EA B
1.000000 EP 0 0 0.0 A
REF: R 602

060-6812-0 RES,METAL FILM,6.81K OHM,1/8W,1% EA B
1.000000 EP 0 0 0.0 AI A
REF: R 611

071-0010-0 CAP,VAR,10PF EA B
1.000000 EP 0 0 0.0 A
REF: C 711

071-0030-0 CAP,VAR,30PF EA B
1.000000 EP 0 0 0.0 A
REF: C 715

081-0005-0 FERRITE BEAD,AX, TYPE39 EA B
6.000000 EP 0 0 0.0 A
REF: FB 301,401,402,803,804,901

081-0010-0 INDUCTOR,AX,HIQ,33UH EA B
1.000000 EP 0 0 0.0 A
REF: L 701

081-0103-0 EMI FILTER, RAD, 103 EA B
3.000000 EP 0 0 0.0 A
REF: FIL 701,702,703

092-0006-0 CON,2XDINX5PIN,F,PC,H,SHIELD EA B
2.000000 EP 0 0 0.0 A
REF: P 401,402

092-0007-2 JACK RCAX4 HORIZ GOLD YELLOW EA B
2.000000 EP 0 0 0.0 A
REF: J 301,302

093-0009-0 HDR,.1X5,VERT,MALE,LOCK EA B
1.000000 EP 0 0 0.0 A
REF: P 202

093-0022-0 HDR,.1X2,VERT,GOLD,N-LOCK EA B
2.000000 EP 0 0 0.0 A
REF: P 203,701

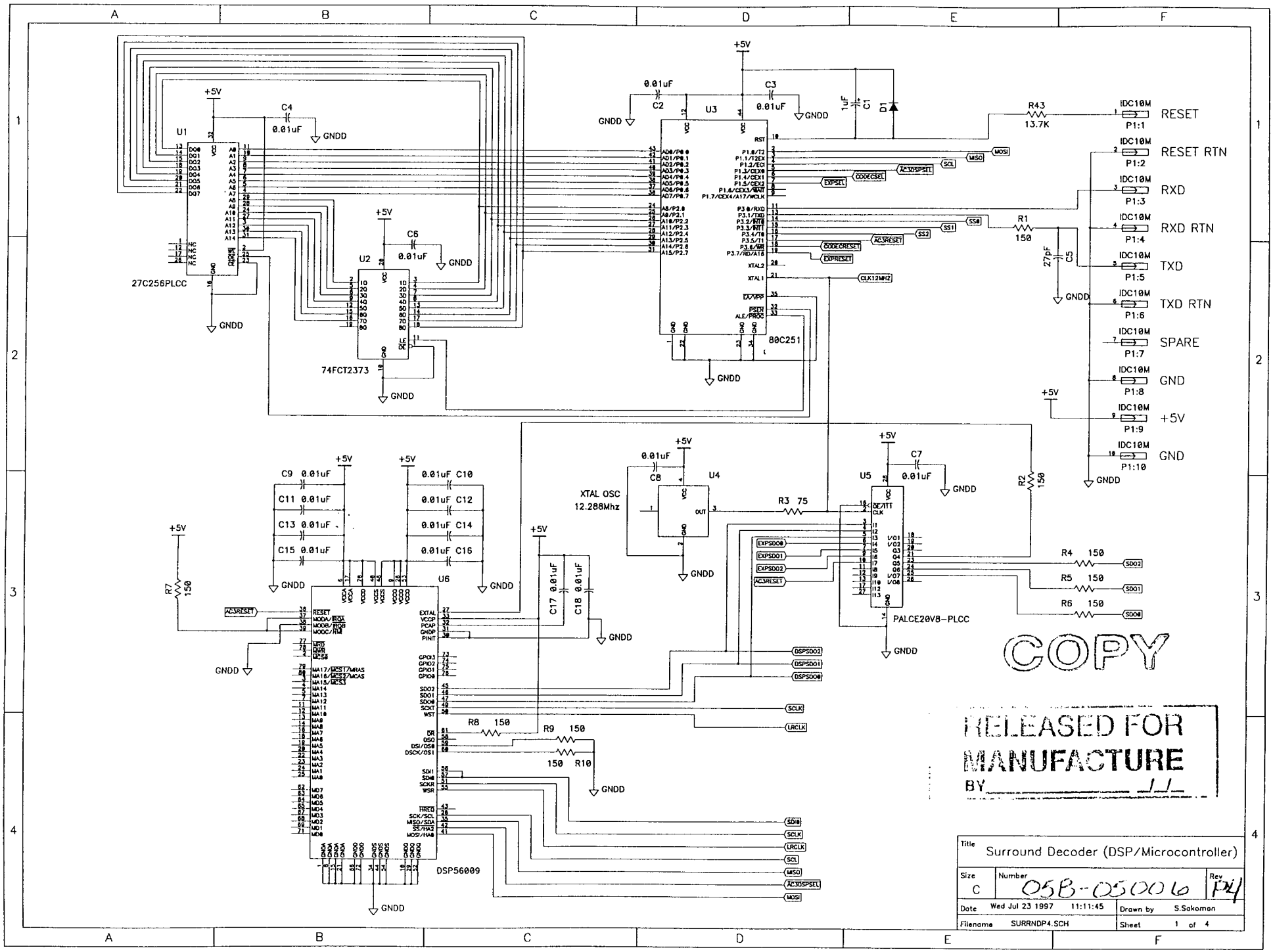
093-2000-0 HDR,.1X2X10,VERT,MALE,SHROUDED EA B
1.000000 EP 0 0 0.0 A
REF: P 201

100-0104-0 BRACKET,.25X.25,KEYSTONE,#621 EA B

	2.000000	EP	0	0	0.0		A
111-0041-0	BOLT,4-40,1/4,PHP,CAD					EA	B
	2.000000	EP	0	0	0.0 0		A
HA145-0011-2	SIG 2.0 VIDEO BOARD					EA	B
	1.000000	EP	0	0	0.0 02		A

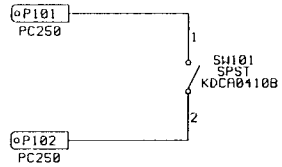
51 COMPONENTS PRINTED

1 ASSEMBLIES PRINTED



Title	Surround Decoder (DSP/Microcontroller)		
Size C	Number 05B-050006		Rev P4
Date	Wed Jul 23 1997 11:11:45	Drawn by	S.Sakoman
Filename	SURRNDP4.SCH	Sheet	1 of 4

REVISIONS			
REV	DESCRIPTION OF CHANGE OR PREVIOUS STATE	DRAWN	DATE
00	ORIGINAL	DJC	3-19-97



COPY

RELEASED FOR MANUFACTURE
BY 6/5/97

SIGNATURE		DATE
DRAWN	DJ CLARK	3-18-97
DRFTG CHK		6/5/97
PROJ MGR	SAT	6/5/97

S2PSW00.SCH

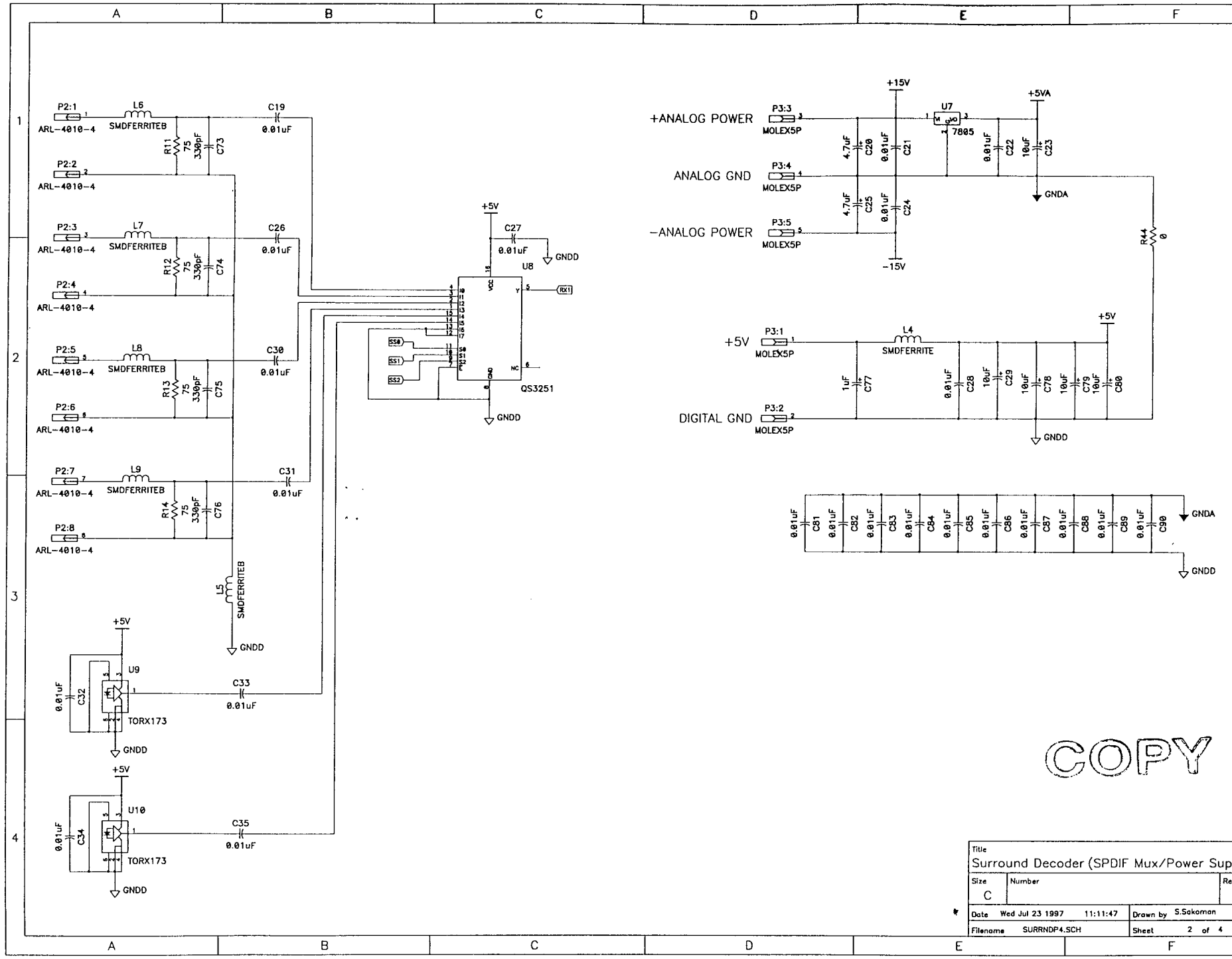
harman consumer group
digital entertainment product center
1308 Borregas Avenue
Sunnyvale, Ca 94089-1001

SIGNATURE 2.0
POWER SWITCH BD.

DWG. NO. 050-95006 REV. 00

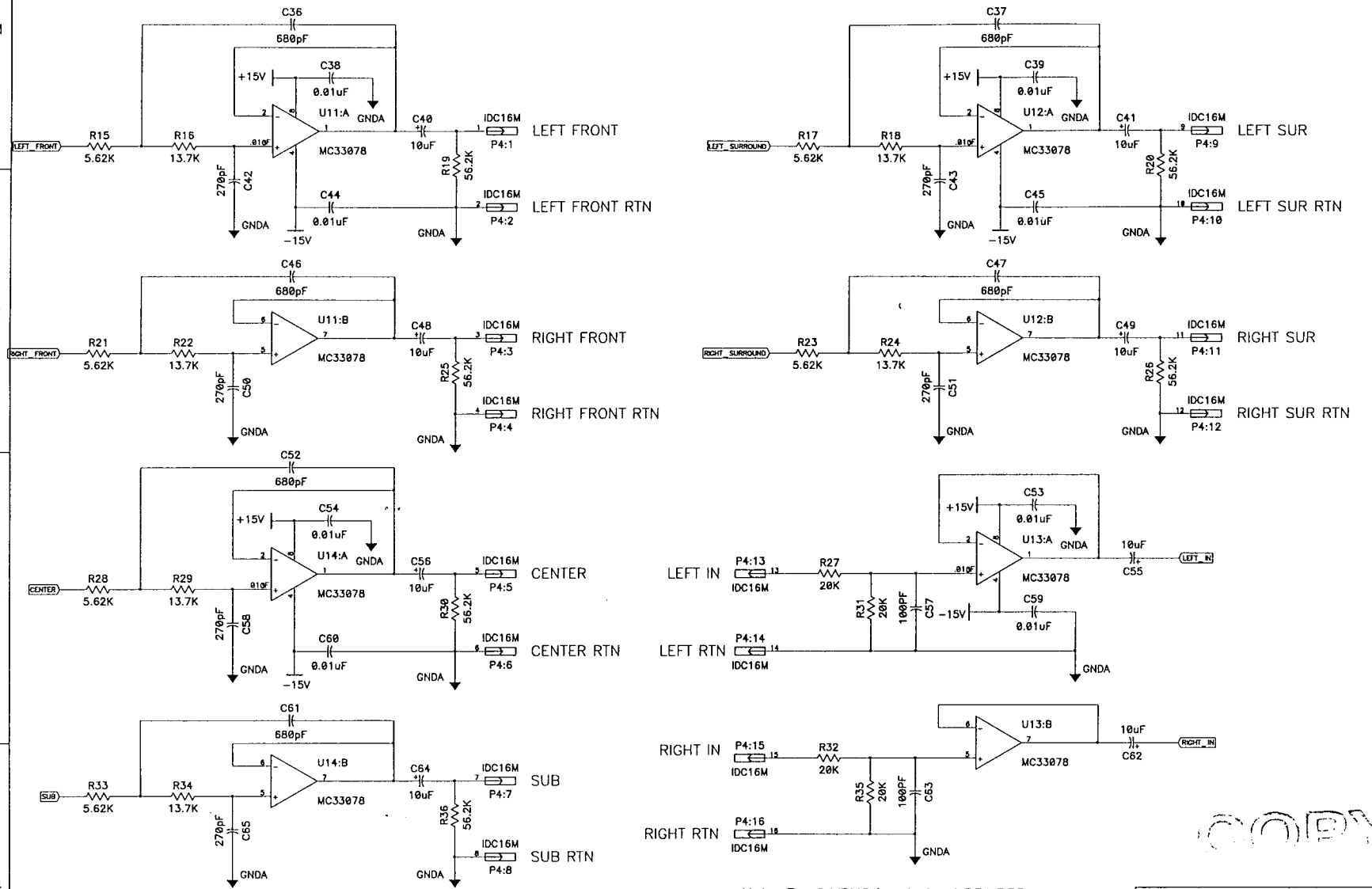
SHEET 1 OF 1

SIGNATURE 2.0 5-15-97 3:41 PM



COPY

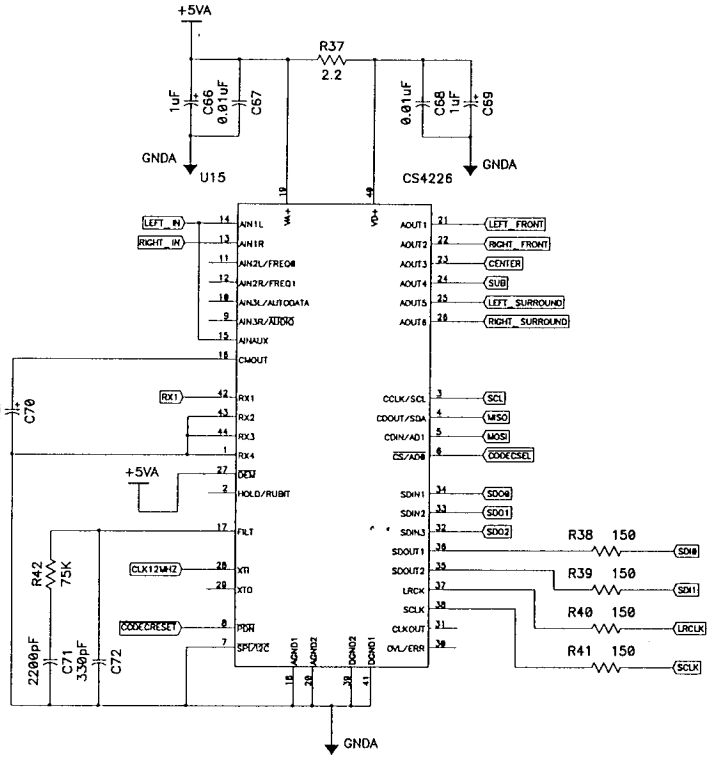
Title: Surround Decoder (SPDIF Mux/Power Supply)			
Size: C	Number		Rev: P4
Date: Wed Jul 23 1997 11:11:47		Drawn by: S.Sakoman	
Filename: SURRNDP4.SCH		Sheet: 2 of 4	

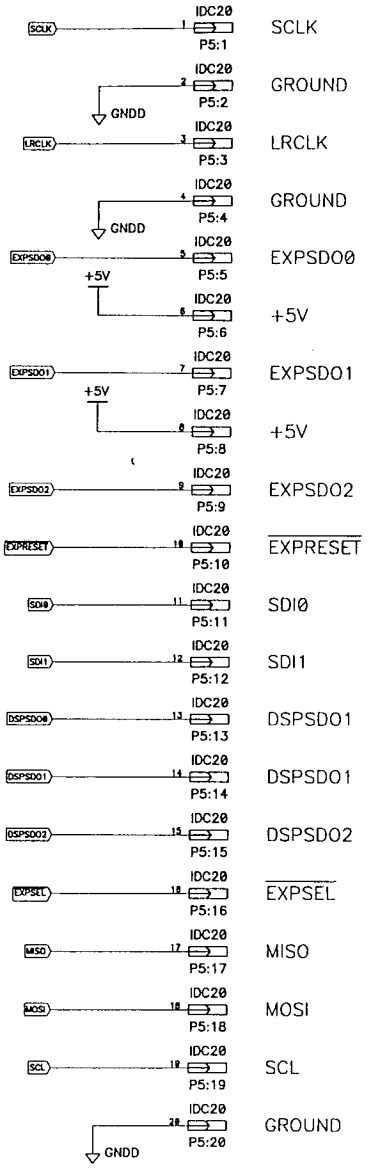


Note: For 2 VRMS inputs load R31,R35

COPY

Title	Surround Decoder (Analog I/O)		
Size	C	Number	Rev P4
Date	Wed Jul 23 1997 11:11:49	Drawn by	S.Sakoman
Filename	SURRNDP4.SCH	Sheet	3 of 4





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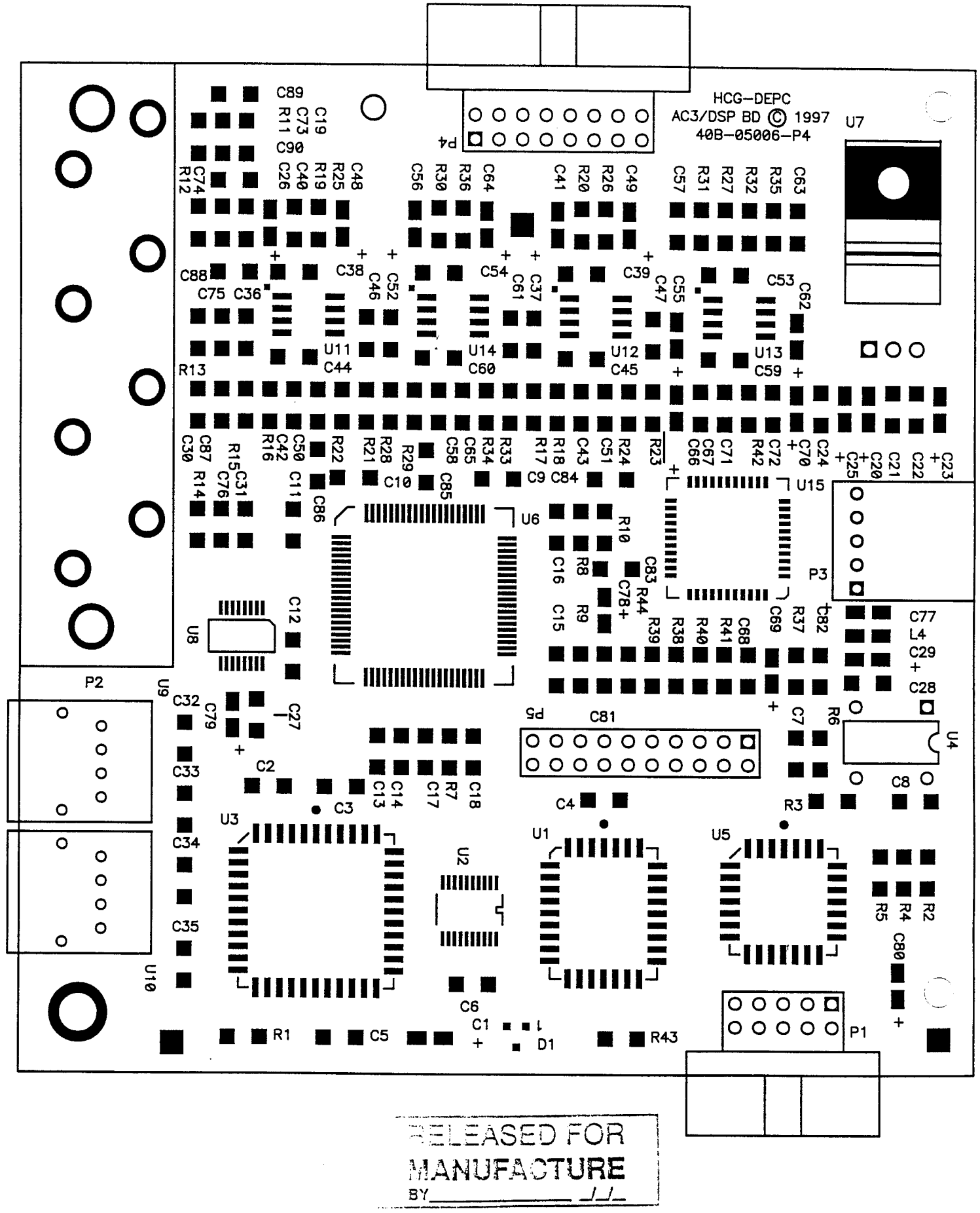
FIDUCIAL

FIDUCIAL

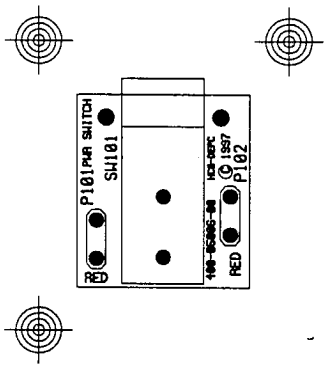
FIDUCIAL

Title	Surround Decoder (Codec)		
Size C	Number		Rev D4
Date	Wed Jul 23 1997 11:11:50	Drawn by	S.Sakoman
Filename	SURRNDP4.SCH	Sheet	4 of 4



RELEASED FOR MANUFACTURE
BY _____

AC3/DSP SILKSCREEN - REV PH



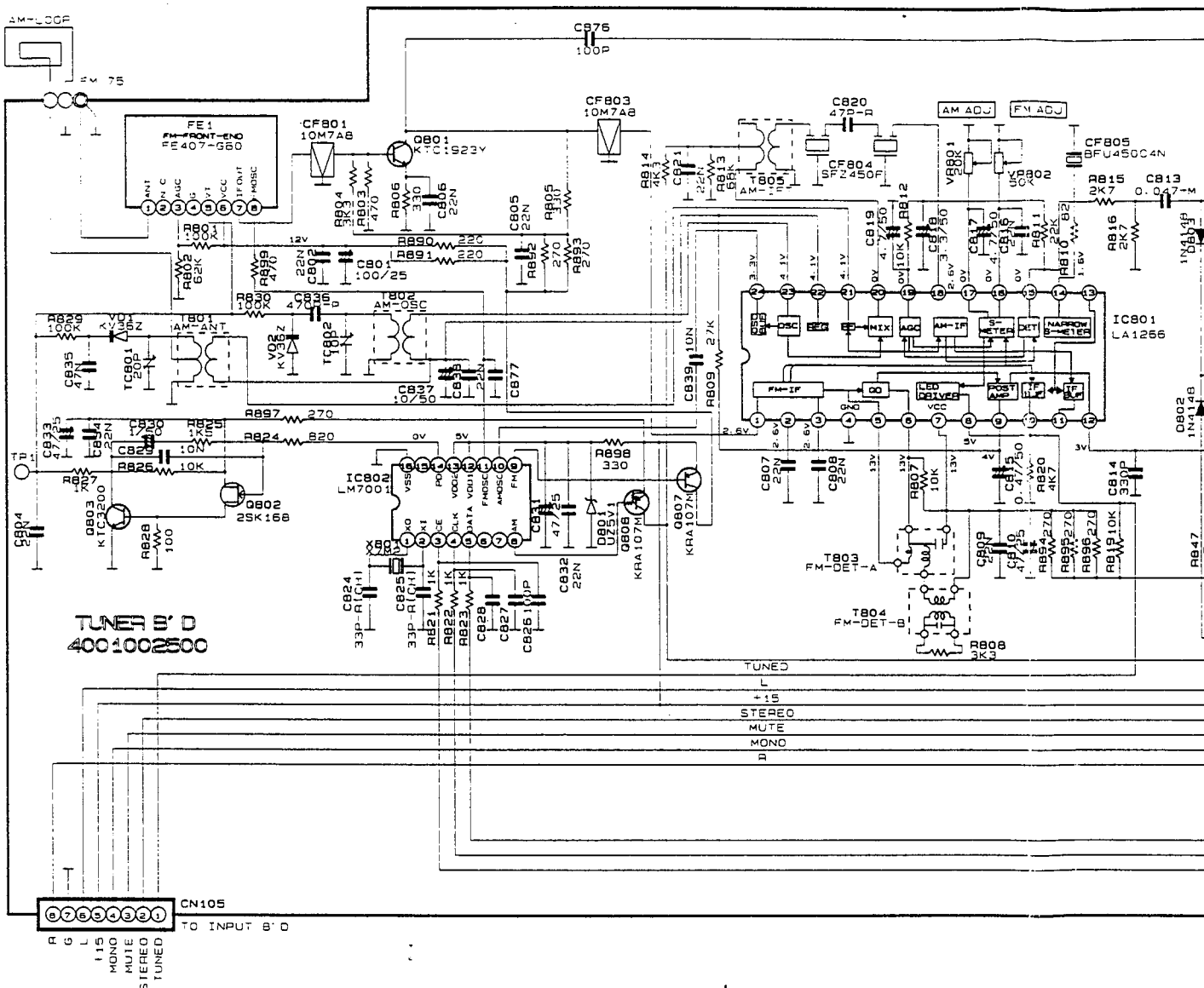
COPY

RELEASED FOR MANUFACTURE
BY S. J. Honda 9-97

harman consumer group digital entertainment product center 1308 Borregas Avenue Sunnyvale, CA 94089-1001	LAYER: SILKSCREEN
PRINTED CIRCUIT BOARD ARTWORK SIGNATURE 2.0, POWER SWITCH BD.	SOLDER
400-05006-00	
DATE: MAR. 18, 1997	
DRAWN BY: DJ CLARK	

HAITAI	HAITAI CAD TEAM		
MODEL NAME	AVR-21	DESIGN	
BOARD NAME	TUNER1	INSPECTION	
STEP	M/B	APPROVAL	
SHEET NO.	:	DATE	97.3.13

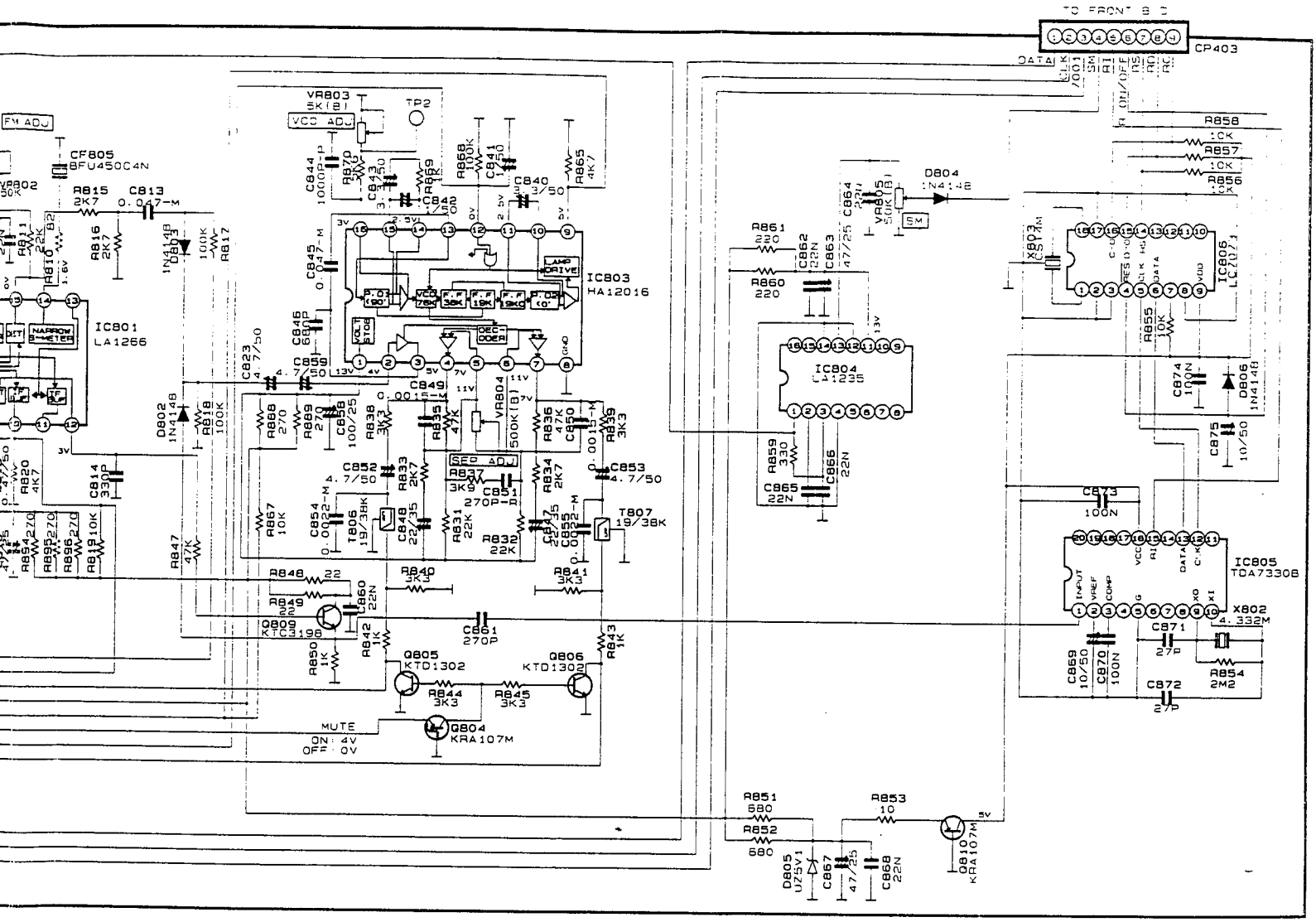
SCHEMATIC



: "A" Version change

G H I J K L M

MATIC DIAGRAM



COPY

NOTES

1. Resistor values are indicated in ohms unless otherwise specified (K=1,000 M=1,000,000)
2. Capacitor values are indicated in microfarades unless otherwise specified. (p=micro-microfarades)

CAUTION

Safety precaution to be followed during servicing

1) Since those parts marked with ⚠ are critical parts for safety, use only the one described in the parts list

2) Before returning the set to the customer make appropriate leakage current or resistance measurements to determine the exposed parts are properly insulated from the supply circuit

REVICED			
NO.	DATE	NO.	DATE
1		6	
2		7	
3		8	
4		9	
5		10	

EQUIPMENT	TUNER	MODEL	AVR-21

DRAW	CHECKED	APPROVED	DATE	DRAWING(NO)
			97. 3. 19	

ASM: HA206-0015-3 **SIG 2.0 AUDIO BOARD ASY,REV03** **EA M**

Gallien Part Number	Description
001-1030-1	TL072CP, LOW NOISE JFET OPAMP EA B 29.000000 EP 0 0 0.0 A REF: U 201,302,401,402,501,502,503, REF: 504,505,601,602,604,605,606,701 REF: 702,703,704,705,1002,1003,1004, REF: 1103,1104,105,1203,1204,1303, REF: 1304
001-1031-0	OP249,OPAMP DUAL PREC HS JFET EA B 3.000000 EP 0 0 0.0 A REF: U 804,903,904
001-1195-0	LM339A,QUAD COMPARATOR EA B 1.000000 EP 0 0 0.0 0 A REF: U 404
001-1973-0	LM1973N DIGITAL ATTENUATOR EA B 3.000000 EP 0 0 0.0 A REF: U 202,1001,1201
002-0035-0	CD4052 EA B 11.000000 EP 0 0 0.0 A REF: U 506,603,706,802,901,902,1005, REF: 1006,1005,1101,1102,1202
002-0051-0	CD4051 EA B 6.000000 EP 0 0 0.0 A REF: U 200,301,801,803,1301,1302
010-0004-0	2SC2878B,TRANS,NPN,MUTING EA B 16.000000 EP 0 0 0.0 A REF: Q 1001,1002,1003,1004,1101,1102, REF: 1103,1104,1201,1202,1203,1204, REF: 1301,1302,1303,1304
020-1000-0	1N4148 ,RECT-FAST,200MA,100V,4NS,DO-35 EA B 4.000000 EP 0 0 0.0 AI A REF: D 401,402,403,404
030-2104-0	CAP,CER,AX,104,10%,50V,X7R EA B 105.000000 EP 0 0 0.0 AI A REF: C 207,208,212,213,307,308,309, REF: 312,313,314,401,402,403,405,409, REF: 501,503,504,508,512,513,514,516, REF: 521,526,530,601,603,604,607,611 REF: 612,613,615,618,621,625,626,701 REF: 703,704,706,710,711,712,714,716 REF: 720,724,728,801,802,804,805,806 REF: 807,809,811,901,902,903,905,906 REF: 909,912,913,1001,1002,1004,1007 REF: 1009,1012,1013,1014,1015,1016, REF: 1035,1036,1101,1102,1104,1105, REF: 1106,1107,1110,1111,1116,1117, REF: 1201,1202,1204,1205,1208,1209, REF: 1210,1213,1301,1302,1305,1308,
030-2104-0	CAP,CER,AX,104,10%,50V,X7R EA B 105.000000 EP 0 0 0.0 AI A REF: 1309,1312,1313,1314,522

030-2270-0	CAP,CER AXIAL,27 PF,10%,50V,NPO	EA B
	16.000000 EP 0 0 0.0 AI	A
	REF: C 404,408,502,509,602,608,702,	
	REF: 707,803,810,907,908,910,911,1311	
	REF: 1310	
030-4100-0	CAP,CER AXIAL,10 PF,10%,100V	EA B
	22.000000 EP 0 0 0.0	A
	REF: C 209,310,506,510,515,517,605,	
	REF: 609,614,616,708,713,715,732,1005	
	REF: 1008,1108,1115,1211,1214,1303,	
	REF: 1306	
030-4102-0	CAP,CER AXIAL,102,10%,100V,X7R	EA B
	18.000000 EP 0 0 0.0	A
	REF: C 201,202,203,204,205,206,301,	
	REF: 302,303,304,305,306,534,535,536	
	REF: 537,733,734	
031-0106-1	CAP,ELEC,RAD,106,20%,25V,NP	EA B
	1.000000 EP 0 0 0.0	A
	REF: C 1102	
036-2105-0	CAP,PE,RAD,105,5%,50V	EA B
	18.000000 EP 0 0 0.0	A
	REF: C 210,311,406,407,507,511,606,	
	REF: 610,705,709,1006,1011,1109,1118	
	REF: 1212,1215,1304,1307	
036-2124-0	CAP,PE,RAD,124,5%,50V	EA B
	20.000000 EP 0 0 0.0	A
	REF: C 518,519,520,523,527,528,529,	
	REF: 531,617,619,620,622,717,718,719	
	REF: 721,726,727,729	
036-2334-0	CAP,PE,RAD,334,5%,50V	EA B
	3.000000 EP 0 0 0.0	A
	REF: C 1019,1034,1114	
036-2472-0	CAP,PE,RAD,472,5%,50V	EA B
	5.000000 EP 0 0 0.0	A
	REF: C 1003,1010,1103,1203,1207	
036-2473-0	CAP,PE,RAD,473,5%,50V	EA B
	11.000000 EP 0 0 0.0	A
	REF: C 524,532,623,722,730,1017,1020	
	REF: 1021,1112,1113,1118	
036-2682-0	CAP,PE,RAD,682,5%,50V	EA B
	5.000000 EP 0 0 0.0	A
	REF: C 525,533,624,723,731	
050-0000-0	RES,METAL WIRE,0 OHM,1/8W	EA B
	4.000000 EP 0 0 0.0 AI	A
	REF: R 217,218,1044,1045	
050-3305-0	RES,CARBON FILM,3.3M OHM,1/8W,5%	EA B
	8.000000 EP 0 0 0.0	A
	REF: R 1004,1014,1030,1035,1104,1122	
	REF: 1206,1209	
058-1003-0	RES,SIP 10K OHMS X 9	EA B
	4.000000 EP 0 0 0.0 0	A
	REF: RP 203,303,1301,1302	
058-2203-0	RES,SIP,22K OHMS X9,2%	EA B

	5.000000 EP 0 0 0.0 A	
	REF: RP 801,802,803,901,902	
060-1002-0	RES,METAL FILM,1.00K,1/8W,1%	EA B
	20.000000 EP 0 0 0.0 AI A	
	REF: R 201,204,206,208,210,212,301	
	REF: 304,306,308,310,312,422,510,518	
	REF: 609,615,635,714,722	
060-1003-0	RES,METAL FILM,10.0K OHM,1/8W,1%	EA B
	25.000000 EP 0 0 0.0 AI A	
	REF: R 101,102,103,104,105,106,107,	
	REF: 403,406,412,415,634,1039,1043,	
	REF: 1047,1049,1115,1130,1132,1228,	
	REF: 1230,1317,1322,1327,1329	
060-1004-0	RES,METAL FILM,100K,1/8W,1%	EA B
	13.000000 EP 0 0 0.0 AI A	
	REF: R 1005,1008,1048,1050,1124,1131,	
	REF: 1133,1220,1223,1229,1231,1328,	
	REF: 1330	
060-1103-0	RES,METAL FILM,11.0K,1/8W,1%	EA B
	11.000000 EP 0 0 0.0 AI A	
	REF: R 404,405,413,414,419,424,426,	
	REF: 431,433,1318,1324	
060-1153-0	RES,METAL FIM,11.5 K OHM,1%,1/8W	EA B
	12.000000 EP 0 0 0.0 A	
	REF: R 501,502,513,514,601,602,611,	
	REF: 612,701,702,716,717	
060-1274-0	RES,METAL FILM,127K,1/8W,1%	EA B
	1.000000 EP 0 0 0.0 A	
	REF: R 1116	
060-1333-0	RES,METAL FILM,13.3 K OHM,1%,1/8W	EA B
	5.000000 EP 0 0 0.0 A	
	REF: R 1016,1020,1108,1210,1214	
060-1473-0	RES,METAL FILM,14.7 K OHM,1%,1/8W	EA B
	9.000000 EP 0 0 0.0 A	
	REF: R 1028,1029,1032,1033,1038,1042	
	REF: 1114,1119,1120	
060-1501-0	RES,METAL FILM,150 OHMS,1/8W,1%	EA B
	16.000000 EP 0 0 0.0 A	
	REF: R 1026,1027,1046,1051,1123,1127	
	REF: 1129,1134,1222,1226,1227,1232,	
	REF: 1319,1323,1326,1331	
060-1503-0	RES,METAL FILM,15.0 K OHM,1/8W,1%	EA B
	1.000000 EP 0 0 0.0 A	
	REF: R 421	
060-1803-0	RES,METAL FILM,18K OHM,1/8W,1%	EA B
	1.000000 EP 0 0 0.0 A	
	REF: R 621	
060-2004-0	RES,METAL FILM,200K OHM,1/8W,1%	EA B
	18.000000 EP 0 0 0.0 A	
	REF: R 216,316,402,410,508,517,607,	
	REF: 614,721,738,1006,1009,1117,1126	
	REF: 1221,1224,1315,1321	
060-2203-0	RES,METAL FILM,22K OHM,1/8W,1%	EA B

	60.000000 EP 0 0 0.0 A	
	REF: R 423,425,430,432,633,801,802,	
	REF: 803,804,805,806,807,808,809,810,	
	REF: 811,812,813,814,818,819,820,821	
	REF: 822,823,824,825,826,827,828,829	
	REF: 830,831,832,833,901,902,903,904	
	REF: 905,906,907,908,909,910,911,912	
	REF: 913,914,915,916,917,918,919,920	
	REF: 921,923,924,925,926	
060-2212-0	RES,METAL FILM,2.21K OHM,1/8W,1%	EA B
	9.000000 EP 0 0 0.0 A	
	REF: R 617,815,816,817,1019,1023,1111	
	REF: 1213,1217	
060-2613-0	RES,METAL FILM,26.1 KOHM,1%,1/8W	EA B
	3.000000 EP 0 0 0.0 A	
	REF: R 1037,1041,1113	
060-3002-0	RES,METAL FILM,3 K OHM,1%,1/8 W	EA B
	6.000000 EP 0 0 0.0 A	
	REF: R 506,520,603,632,711,718	
060-3103-0	RES,METAL FILM,30.1K OHM,1/8W,1%	EA B
	34.000000 EP 0 0 0.0 A	
	REF: R 202,205,207,209,211,213,214,	
	REF: 302,305,307,309,311,313,314,511	
	REF: 519,610,616,715,739,1301,1302,	
	REF: 1303,1304,1305,1306,1307,1308	
	REF: 1309,1310,1311,1312,1313,1325	
060-3482-0	RES,METAL FILM,3.48K OHM,1/8W,1%	EA B
	7.000000 EP 0 0 0.0 A	
	REF: R 1018,1022,1105,1106,1110,1212,	
	REF: 1216	
060-3603-0	RES,METAL FILM,36K OHM,1/8W,1%	EA B
	36.000000 EP 0 0 0.0 A	
	REF: R 215,315,503,504,505,509,515,	
	REF: 516,521,523,524,525,528,540,604,	
	REF: 605,613,619,622,623,624,637,703,	
	REF: 704,705,706,708,709,710,713,720,	
	REF: 723,724,737,1314,1320	
060-3742-0	RES,METAL FILM,3.74K OHM,1/8W,1%	EA B
	18.000000 EP 0 0 0.0 A	
	REF: R 318,407,409,416,418,507,522,	
	REF: 526,533,608,618,625,712,719,725	
	REF: 731,1015,1205	
060-4703-0	RES,METAL FILM,47.0K OHM,1/8W,1%	EA B
	15.000000 EP 0 0 0.0 AI A	
	REF: R 530,531,532,536,537,539,629,	
	REF: 630,631,728,729,730,734,735,736	
060-5362-0	RES,METAL FILM,5.36K OHM,1%,1/8W	EA B
	1.000000 EP 0 0 0.0 A	
	REF: R 420	
060-5902-0	RES,METAL FILM,5.9K OHM,1/8W,1%	EA B
	5.000000 EP 0 0 0.0 A	
	REF: R 1017,1021,1109,1211,1215	
060-5903-0	RES,METAL FILM,59.0K OHM,1/8W,1%	EA B

	3.000000 EP 0 0 0.0 A	
	REF: R 1036,1040,1112	
060-6493-0	RES,METAL FILM,64.9K,1/8W,1%	EA B
	5.000000 EP 0 0 0.0 A	
	REF: R 529,535,628,727,733	
060-6804-0	RES,METAL FILM,680K OHM,1/8W,1%	EA B
	6.000000 EP 0 0 0.0 A	
	REF: R 427,428,429,434,435,436	
060-6812-0	RES,METAL FILM,6.81K OHM,1/8W,1%	EA B
	5.000000 EP 0 0 0.0 AI A	
	REF: R 1003,1012,1103,1207,1208	
060-7502-0	RES,METAL FILM,7.5K OHM,1/8W,1%	EA B
	6.000000 EP 0 0 0.0 A	
	REF: R 1007,1013,1107,1128,1218,1219	
060-8253-0	RES,METAL FILM,82.5 K OHM,1/8W,1%	EA B
	2.000000 EP 0 0 0.0 A	
	REF: R 401,411	
060-9102-0	RES,METAL FILM,9.10K OHM,1/8W,1%	EA B
	3.000000 EP 0 0 0.0 AI A	
	REF: R 408,417,620	
060-9532-0	RES,METAL FILM,9.53K OHM,1/8W,1%	EA B
	5.000000 EP 0 0 0.0 A	
	REF: R 527,534,627,726,732	
060-9762-0	RES,METAL FILM,9.76K OHM,1/8W,1%	EA B
	3.000000 EP 0 0 0.0 A	
	REF: R 1031,1034,1121	
081-0102-0	EMI FILTER, RAD,1000PF	EA B
	26.000000 EP 0 0 0.0 A	
	REF: FIL 201,202,203,204,205,206,301	
	REF: 302,303,304,305,306,501,502,600	
	REF: 601,700,701,1001,1002,1101,1102,	
	REF: 1201,1202,1301,1302	
092-0007-0	JACK,RCAX4,HORIZ,GOLD,RD/WT	EA B
	7.000000 EP 0 0 0.0 A	
	REF: J 201,204,202,203,501,1001,1101	
093-0009-0	HDR,.1X5,VERT,MALE,LOCK	EA B
	1.000000 EP 0 0 0.0 A	
	REF: J 104	
093-0019-0	HDR,.1X2X8,VERT,SHROUDED	EA B
	1.000000 EP 0 0 0.0 A	
	REF: J 100	
093-2000-0	HDR,.1X2X10,VERT,MALE,SHROUDED	EA B
	2.000000 EP 0 0 0.0 A	
	REF: J 101,103	
093-2003-0	HDR,2MMX8,VERT,SHROUDED	EA B
	1.000000 EP 0 0 0.0 A	
	REF: J 102	
153-0105-0	LABEL,BLANK,.9"X.25"	EA B
	1.000000 EP 0 0 0.0 A	
HA145-0015-3	SIG 2.0 AUDIO I/O RAW PCB	EA B
	1.000000 EP 0 0 0.0 03 A	

63 COMPONENTS PRINTED

ASM: HA206-0012-0 SIG 2.0 CPU BOARD ASSY EA M

Gallien Part Number	Description
001-0004-0	4N26 OPTO-COUPLER SIX PIN 1.5KV EA B 1.000000 EP 0 0 0.0 A REF: U 302
002-0086-0	74HC86, EXCLUSIVE OR GATE,QUAD,2 IN EA B 1.000000 EP 0 0 0.0 A REF: U 310
002-0202-0	MAX202, INTRFC XCVR RS232 EA B 1.000000 EP 0 0 0.0 A REF: U 502
002-1008-0	74HC08 EA B 1.000000 EP 0 0 0.0 A REF: U 503
002-1138-0	74HC138 EA B 2.000000 EP 0 0 0.0 A REF: U 307,308
002-1139-0	74HC139N,DECODER,DUAL 2 TO 4 EA B 1.000000 EP 0 0 0.0 A REF: U 309
002-1541-1	74HC541, BUFFER, OCTAL TRISTATE EA B 3.000000 EP 0 0 0.0 A REF: U 411,412,413
002-1574-0	74HC574N TRI-STATE OCTAL D FLIP FLOP EA B 8.000000 EP 0 0 0.0 A REF: U 401,402,403,404,405,406,407, REF: 408
003-0020-4	EPROM,128KX8,120NS,27C010-12 EA B 1.000000 EP 0 0 0.0 2.4 A REF: U 305
003-0080-0	EPROM, SERIAL, 8K, 25080 EA B 1.000000 EP 0 0 0.0 A REF: U 501
003-0264-0	SRAM,8KX8,28PIN,600MIL,PLAST DIP EA B 1.000000 EP 0 0 0.0 A REF: U 306
003-1705-0	UP SUPERVISOR, 4.65V,UPS705 EA B 1.000000 EP 0 0 0.0 A REF: U 303
003-2180-0	MICROPROCESSOR,Z80180,10MHZ EA B 1.000000 EP 0 0 0.0 A REF: U 304
010-0002-0	2N3904 TRANS,NPN EA B 4.000000 EP 0 0 0.0 A REF: Q 501,503,506,507
010-1013-0	MPSA56 PNP 80V 500MA TO-92 EA B 3.000000 EP 0 0 0.0 0 A REF: Q 502,504,505
020-1000-0	1N4148 ,RECT-FAST,200MA,100V,4NS,DO-35 EA B 6.000000 EP 0 0 0.0 Al A REF: D 303,304,401,504,508 + REF: ECO#972601

020-2107-0 DIODE RECT 1A 1N4003 EA B
2.000000 EP 0 0 0.0 A
REF: D 501,502

024-0005-0 CRYSTALL, 18.432 MHZ,HC49 EA B
1.000000 EP 0 0 0.0 A
REF: X 301

030-2104-0 CAP,CER,AX,104,10%,50V,X7R EA B
38.000000 EP 0 0 0.0 AI A
REF: C 101,102,104,105,106,107,111,
REF: 112,115,116,119,120,121,122,123
REF: 126,127,128,130,132,133,134,135,
REF: 201,205,209,211,304,305,306,307,
REF: 401,503,504,505,506,507,118

030-2270-0 CAP,CER AXIAL,27 PF,10%,50V,NPO EA B
2.000000 EP 0 0 0.0 AI A
REF: C 301,302

030-4102-0 CAP,CER AXIAL,102,10%,100V,X7R EA B
2.000000 EP 0 0 0.0 A
REF: C 308,509

031-1227-0 CAP,ELEC,RAD,227,-10%+50%,25V EA B
2.000000 EP 0 0 0.0 0 A
REF: C 202,206

037-0106-0 CAP,TAN,RAD,106,10%,6.3V EA B
10.000000 EP 0 0 0.0 A
REF: C 138,140,141,142,143,144,145,
REF: 210,212 + ECO# 972601

050-1001-0 RES,CARBON FILM,100 OHM,1/8W,5% EA B
1.000000 EP 0 0 0.0 AI A
REF: R 306

050-1002-0 RES,CARBON FILM,1K OHM,1/8W,5% EA B
4.000000 EP 0 0 0.0 AI A
REF: R 507,511,514,515

050-1003-0 RES,CARBON FILM,10K OHM,1/8W,5% EA B
13.000000 EP 0 0 0.0 AI A
REF: R 305,309,310,408,501,503,504,
REF: 505,506,508,509,510,512

050-3904-0 RES,CARBON FILM,390K OHM,1/8W,5% EA B
3.000000 EP 0 0 0.0 AI A
REF: R 311,407,513

060-1213-0 RES,METAL FILM,12.1 K OHM,1/8W,1% EA B
1.000000 EP 0 0 0.0 A
REF: R 307

060-2212-0 RES,METAL FILM,2.21K OHM,1/8W,1% EA B
1.000000 EP 0 0 0.0 A
REF: R 308

081-0102-0 EMI FILTER, RAD,1000PF EA B
4.000000 EP 0 0 0.0 A
REF: FIL 201,202,203,502

081-0103-0 EMI FILTER, RAD, 103 EA B
7.000000 EP 0 0 0.0 A
REF: FIL 501,503,504,505,506,507,508

091-1004-0 POLY SWITCH,.2A EA B
2.000000 EP 0 0 0.0 A

	REF: F 501,502	
092-0013-0	CON,DSUB,9P,F,PC,HOR	EA B
	1.000000 EP 0 0 0.0	A
	REF: P 501	
092-0021-0	JACK,PHONE,3.5MM,MONO SB	EA B
	3.000000 EP 0 0 0.0	A
	REF: J 501,502,503	
093-0009-0	HDR,.1X5,VERT,MALE,LOCK	EA B
	1.000000 EP 0 0 0.0	A
	REF: P 201	
093-0039-0	HDR,.1X2X5,VERT,MALE,SHROUDED	EA B
	1.000000 EP 0 0 0.0	A
	REF: P 203	
093-2000-0	HDR,.1X2X10,VERT,MALE,SHROUDED	EA B
	4.000000 EP 0 0 0.0	A
	REF: P 204,205,206,207	
093-2001-0	HDR,2MMX11,POL,SHROUDED,	EA B
	1.000000 EP 0 0 0.0	A
	REF: P 211	
093-2004-0	HDR,2MMX9,VERT,SHROUDED	EA B
	1.000000 EP 0 0 0.0	A
	REF: P 200	
094-0003-0	SKT,DIP,.6X32,MPTST	EA B
	1.000000 EP 0 0 0.0	A
	REF: U 305	
094-0005-0	SKT,PLCC,TST,68PIN	EA B
	1.000000 EP 0 0 0.0	A
	REF: U 304	
100-0104-0	BRACKET,.25X.25,KEYSTONE,#621	EA B
	1.000000 EP 0 0 0.0	A
111-0041-0	BOLT,4-40,1/4,PHP,CAD	EA B
	1.000000 EP 0 0 0.0 0	A
153-0105-0	LABEL,BLANK,.9"X.25"	EA B
	1.000000 EP 0 0 0.0	A
HA145-0012-0	SIG 2.0 CPU RAW PCB	EA B
	1.000000 EP 0 0 0.0 00	A

45 COMPONENTS PRINTED

1 ASSEMBLIES PRINTED

ASM: HA206-0013-1 SIG 2.0 DSP BOARD ASSY REV 01 EA M

Gallien Part Number	Description
001-1078-0	MC33078D DUAL LOW NOISE OP AMP EA B
	4.000000 EP 0 0 0.0 A
	REF: U 11,12,13,14
001-3173-0	TORX173,FIBER OPTICS RECEIVING MODULE EA B
	2.000000 EP 0 0 0.0 A
	REF: U 9,10
001-3251-0	QS3251Q,MUX/DEMUX QUICK SWITCH 8 EA B
	1.000000 EP 0 0 0.0 A
	REF: U 8
002-0237-0	QS74FCT2373TQ,LATCH 8BIT WITH OUTPUT RES EA B
	1.000000 EP 0 0 0.0 A
	REF: U 2
003-2226-0	SURROUND SOUND 20 BIT CODEC EA B
	1.000000 EP 0 0 0.0 A
	REF: U 15
003-2560-0	DSPF56009FJ81 DSP PROCESSOR EA B
	1.000000 EP 0 0 0.0 A
	REF: U 6
003-2B16-0	MICROCONTROLLER,N80C251SB16 EA B
	1.000000 EP 0 0 0.0 A
	REF: U 3
003-3003-A	PAL EA B
	1.000000 EP 0 0 0.0 A
	REF: U 5
003-4004-A	EPROM,256 KILOBIT CMOS OTP EA B
	1.000000 EP 0 0 0.0 A
	REF: U 1
014-0071-0	LM7805CT 5V REG 1A TO-220 EA B
	1.000000 EP 0 0 0.0 0 A
	REF: U 7
024-0001-0	CLOCK OSCILLATOR (HALF SIZE) 12.288 MHZ EA B
	1.000000 EP 0 0 0.0 A
	REF: U 4
031-0106-1	CAP,ELEC,RAD,106,20%,25V,NP EA B
	1.000000 EP 0 0 0.0 A
	REF: ECO # 972062
031-0108-0	CAP,ELEC,RAD,108,-10%+50%,16V EA B
	1.000000 EP 0 0 0.0 0 A
	REF: ECO # 972062
040-2101-0	CAP,CER,101,5%,50V,NPO,1206,SMT EA B
	2.000000 EP 0 0 0.0 A
	REF: C 57,63
040-2103-0	CAP,CER,103,X7R,50V,1206 EA B
	49.000000 EP 0 0 0.0 A
	REF: C 2,3,4,6,7,8,9,10,11,12,13,14
	REF: 15,16,17,18,19,21,22,24,26,27,28
	REF: 30,31,32,33,34,35,38,39,44,45,53
040-2103-0	CAP,CER,103,X7R,50V,1206 EA B
	49.000000 EP 0 0 0.0 A
	REF: 54,59,60,67,68,81,82,83,84,85,86

	REF: 87,88,89,90	
040-2222-0	CAP,CER,222,10%,50V,X7R,1206,SMT	EA B
	1.000000 EP 0 0 0.0 A	
	REF: C 71	
040-2270-1	CAP,CER,27,20%,50V,X7R,1026,SMT	EA B
	1.000000 EP 0 0 0.0 A	
	REF: C 5	
040-2271-0	CAP CER,271,X7R,50V,1206	EA B
	6.000000 EP 0 0 0.0 A	
	REF: C 42,43,50,51,58,65	
040-2331-0	CAP,CER,331,X7R,50V,1206	EA B
	5.000000 EP 0 0 0.0 A	
	REF: C 72,73,74,75,76	
040-2681-0	CAP,CERAMIC,681,5%,50V,Z5U,1206,SMT	EA B
	6.000000 EP 0 0 0.0 A	
	REF: C 36,37,46,47,52,61	
047-0105-0	CAP,TANT,105,20%,16V,A CASE,SMT	EA B
	4.000000 EP 0 0 0.0 A	
	REF: C 1,66,70,77	
047-0106-1	CAP,TANT,106,20%,6.3V,C CASE,SMT	EA B
	14.000000 EP 0 0 0.0 A	
	REF: C 23,29,40,41,48,49,55,56,62,64,	
	REF: 69,78,79,80	
047-1105-0	CAP,TANT,105,20%,25V,A CASE,3216	EA B
	2.000000 EP 0 0 0.0 A	
	REF: C 20,25	
051-0200-0	RES,CARBON FILM,2 OHM,1/4W,5%	EA B
	1.000000 EP 0 0 0.0 A	
	REF: ECO # 972062	
062-0000-0	RES,CF,0 OHM,1/8W,5%,1206,SMT	EA B
	1.000000 EP 0 0 0.0 A	
	REF: R 44	
063-1372-0	RES,METAL FILM,13.7K OHM,1/8W,1%,1206	EA B
	7.000000 EP 0 0 0.0 A	
	REF: R 16,18,22,24,29,34,43	
063-1501-0	RES,METAL FILM,150 OHM,1/8W,1%,1206	EA B
	13.000000 EP 0 0 0.0 A	
	REF: R 1,2,4,5,6,7,8,9,10,38,39,40,41	
063-2003-0	RES,METAL FILM,20K OHM,1/8W,1%,1206	EA B
	2.000000 EP 0 0 0.0 A	
	REF: R 27,32	
063-5622-0	RES,METAL FILM,5.62K OHM,1/8W,1%,1206	EA B
	6.000000 EP 0 0 0.0 A	
	REF: R 15,17,21,23,28,33	
063-5623-0	RES,METAL FILM,56.2K OHM,1/8W,1%,1206	EA B
	6.000000 EP 0 0 0.0 A	
	REF: R 19,20,25,26,30,36	
063-7500-0	RES,METAL FILM,75 OHM,1/8W,1%,1206	EA B
	5.000000 EP 0 0 0.0 A	
	REF: R 3,11,12,13,14	
063-7503-0	RES,METAL FILM,75K OHM,1/8W,1%,1206	EA B
	1.000000 EP 0 0 0.0 A	
	REF: R 42	

081-0011-0	INDUCTOR,AX,HIQ,820UH						EA	B	
	1.000000	EP	0	0	0.0		A		
	REF: ECO # 970262								
085-0106-0	FERRITE,SMT,3216					EA	B		
	1.000000	EP	0	0	0.0		A		
	REF: L 4								
085-0106-1	FERRITE,SMT,4532					EA	B		
	5.000000	EP	0	0	0.0		A		
	REF: L 5,6,7,8,9								
085-0336-0	INDUCTOR,SMT,33 UH,1206						EA	B	
	1.000000	EP	0	0	0.0		A		
092-0020-0	JACK,RCAX4,H,PC,GOLD						EA	B	
	1.000000	EP	0	0	0.0		A		
093-0010-0	HDR,.1X5,HORIZ,POL,LOCK RAMP						EA	B	
	1.000000	EP	0	0	0.0		A		
	REF: P 3								
093-0019-0	HDR,.1X2X8,VERT,SHROUDED						EA	B	
	1.000000	EP	0	0	0.0		A		
	REF: P 4								
093-0039-0	HDR,.1X2X5,VERT,MALE,SHROUDED						EA	B	
	1.000000	EP	0	0	0.0		A		
	REF: P 1								
093-0041-0	HDR,.1X2X10,VERT,MALE						EA	B	
	1.000000	EP	0	0	0.0		A		
	REF: P 5								
094-0073-0	SKT,PLCC,SMTX32,RECT						EA	B	
	1.000000	EP	0	0	0.0		A		
	REF: U 1								
095-0500-0	WIRE,14GA,BLACK,600V						FT	B	
	0.167000	EP	0	0	0.0	0	A		
100-0104-0	BRACKET,.25X.25,KEYSTONE,#621						EA	B	
	1.000000	EP	0	0	0.0		A		
111-0041-0	BOLT,4-40,1/4,PHP,CAD					EA	B		
	1.000000	EP	0	0	0.0	0	A		
153-0105-0	LABEL,BLANK,.9"X.25"					EA	B		
	1.000000	EP	0	0	0.0		A		
HA145-0013-0	SIG 2.0 DSP RAW PCB,REV 01						EA	B	
	1.000000	EP	0	0	0.0	01	A		

47 COMPONENTS PRINTED

1 ASSEMBLIES PRINTED

ASM: HA206-0016-0 SIG 2.0 BUTTON LOGO PANEL BOARD ASSY EA M

Gallien Part Number	Description
010-0002-0	2N3904 TRANS,NPN EA B 1.000000 EP 0 0 0.0 A REF: Q 201
010-1000-0	2N3906 PNP 40V 100MA TO-92 EA B 2.000000 EP 0 0 0.0 0 A REF: Q 202,501
025-0003-0	IR RECEIVER,38KHZ,W/CLIP,TFMT 5380 EA B 1.000000 EP 0 0 0.0 A REF: U 501
025-0024-0	LED,AMBER,T1,580NM EA B 1.000000 EP 0 0 0.0 A REF: D 201
025-0030-0	LED,BLUE,T1,.190,470NM,SMALL EA B 9.000000 EP 0 0 0.0 A REF: D 202,203,204,205,206,207,208, REF: 209,210
030-2104-0	CAP,CER,AX,104,10%,50V,X7R EA B 3.000000 EP 0 0 0.0 AI A REF: C 502,504,506
031-1476-0	CAP,ELEC,RAD,476,20%,25V EA B 2.000000 EP 0 0 0.0 A REF: C 501,503
038-0336-0	CAP,ELEC,AXIAL TR,336,20%,25V EA B 1.000000 EP 0 0 0.0 AI A REF: C 505
050-1003-0	RES,CARBON FILM,10K OHM,1/8W,5% EA B 8.000000 EP 0 0 0.0 AI A REF: R 501,203,204,205,207,208,209, REF: 210
050-1501-0	RES,CARBON FILM,150 OHM,1/8W,5% EA B 1.000000 EP 0 0 0.0 AI A REF: R 206
050-3001-0	RES,CARBON FILM,300 OHM,1/8W,5% EA B 1.000000 EP 0 0 0.0 A REF: R 502
050-6801-0	RES,CARBON FILM,680 OHM,1/8W,5% EA B 1.000000 EP 0 0 0.0 AI A REF: R 202
058-1003-0	RES,SIP 10K OHMS X 9 EA B 1.000000 EP 0 0 0.0 0 A REF: R 201
081-0004-0	INDUCTOR,100UH EA B 2.000000 EP 0 0 0.0 A REF: L 501,502
090-0007-0	SWITCH,8A/128A,250V,PP,PCB EA B 1.000000 EP 0 0 0.0 A REF: SW 101
090-0040-0	SWITCH PC SPST MOM TL2101 EA B 8.000000 EP 0 0 0.0 A REF: SW 201,202,203,204,205,206,207

	REF: SW 201 (STANDBY BOARD)	
090-1001-0	ENCODER,ROTARY,VPCMNT, 24 POS	EA B
	1.000000 EP 0 0 0.0 A	
	REF: SW 301	
092-0066-0	FASTON,M,PC,.250"	EA B
	2.000000 EP 0 0 0.0 A	
	REF: P 101,102	
093-0010-0	HDR,.1X5,HORIZ,POL,LOCK RAMP	EA B
	1.000000 EP 0 0 0.0 A	
	REF: P 202	
093-0044-0	HDR,2MMX3,HORIZ,MALE,LOCK	EA B
	4.000000 EP 0 0 0.0 A	
	REF: P 201,203,204,301	
093-2000-0	HDR,.1X2X10,VERT,MALE,SHROUDED	EA B
	1.000000 EP 0 0 0.0 A	
	REF: P 501	
093-2001-0	HDR,2MMX11,POL,SHROUDED,	EA B
	1.000000 EP 0 0 0.0 A	
	REF: P 201 (BUTTON LOGO BOARD)	
094-0002-0	SKT,STRIP,TST,2X7,HORIZ	EA B
	1.000000 EP 0 0 0.0 A	
	REF: P 502	
100-0121-0	SPACER,LED,NYLON,0.250"X0.187"	EA B
	10.000000 EP 0 0 0.0 A	
	REF: D 201,202,203,204,205,206,207,	
	REF: 208,209,210	
153-0105-0	LABEL,BLANK,.9"X.25"	EA B
	1.000000 EP 0 0 0.0 A	
HA145-0016-A	SIG 2.0 BUTTON LOGO PANEL RAW PCB	EA B
	1.000000 EP 0 0 0.0 00 A	
	REF: the panel consists of 5 boards:	
	REF: HA145-0005-0 Pwr switch board	
	REF: HA145-0007-0 VFD/IR board	
	REF: HA145-0008-0 Standby board	
	REF: HA145-0009-0 Button logo board	
	REF: HA145-0010-0 Rotary ecoder board	

26 COMPONENTS PRINTED

1 ASSEMBLIES PRINTED

ASM: HA302-1020-A SIG 2.0 230V

Gallien Part Number	Description
014-0031-0	LM7815 +15V REG 1A TO-220 1.000000 EP 0 0 0.0 0 REF: U 204
014-0071-0	LM7805CT 5V REG 1A TO-220 3.000000 EP 0 0 0.0 0 REF: U 201,202,203
014-1001-0	VOLTAGE REGULATOR,TO-220 IN,-5V,7905 1.000000 EP 0 0 0.0 REF: U 208
014-1032-0	LM7915 -15V REG 1A TO-220 1.000000 EP 0 0 0.0 0 REF: U 206
025-1000-0	DISPLAY,VF 1.000000 EP 0 0 0.0
080-0032-2	TRANSFORMER SIG 2.0,10V@2.2A,230V 1.000000 EP 0 0 0.0 02
080-0033-2	TRANSFORMER SIG 2.0,36V@1.1A,230V 1.000000 EP 0 0 0.0 02
091-0032-0	FUSE,5MM,400MA,250V,SLB,SEMKO/VDE 1.000000 EP 0 0 0.0
091-0039-0	FUSE,5MM,315MA,250V,SLB,UL/CSA/SEMKO 1.000000 EP 0 0 0.0 REF: F 102
093-0003-1	HDR,.1X2X7,HORIZ,MALE 1.000000 EP 0 0 0.0 REF: VFD HEADER
093-0066-0	SHUNT .1",TIN,2 POS, 1.000000 EP 0 0 0.0 0
094-0019-0	LUG,#6,SOLDER 1.000000 EP 0 0 0.0 0
095-0007-0	CORD,2X.75MM,2.5A/250V,FLAT,8FT,EXP 1.000000 EP 0 0 0.0
095-0500-0	WIRE,14GA,BLACK,600V 0.700000 EP 0 0 0.0 0
096-0000-0	AAA ALKALINE BATTERY 2.000000 EP 0 0 0.0
100-0007-0	SIG 2.0, WINDOW 1.000000 EP 0 0 0.0
100-0011-0	STRAIN RELIEF,SPT-2,UL,CSA 1.000000 EP 0 0 0.0
100-0033-0	CABLE TIE - PLT 1M-M,SMALL 12.000000 EP 0 0 0.0 0
100-0121-0	SPACER,LED,NYLON,0.250"X0.187" 6.000000 EP 0 0 0.0
100-0126-0	HOLDER,CABLE TIE .75" SQUARE,ADHESIVE BK 2.000000 EP 0 0 0.0
101-0002-0	FOOT BLACK ANODIZED/RUBBER GASKET 4.000000 EP 0 0 0.0
102-0000-0	BUTTON, LARGE,CIT 7.0 1.000000 EP 0 0 0.0

102-0001-0	BUTTON, SMALL, CIT 7.0
	7.000000 EP 0 0 0.0
102-0002-0	KNOB,2',ALUM CAP,BLACK,UNMARKED
	1.000000 EP 0 0 0.0
102-0003-0	BUTTON CAP, LOUDNESS, H/K
	1.000000 EP 0 0 0.0
105-0001-0	INSULATOR TAPE,1"X7MIL ADHESIVE BACK
	0.500000 EP 0 0 0.0 0
111-0051-0	BOLT,4-40,5/16,PHP,CAD
	2.000000 EP 0 0 0.0 0
111-0061-0	BOLT,4-40,3/8,PHP,CAD
	1.000000 EP 0 0 0.0 0
111-1040-1	BOLT,4-40,1/4UFHP,BZ,UNDERCUT FLAT
	3.000000 EP 0 0 0.0
111-2041-0	BOLT,4-40,1/4,PHP,INT STAR WSHR,ZINC
	4.000000 EP 0 0 0.0 0
111-2080-0	BOLT,4-40,1/4,ZINC
	2.000000 EP 0 0 0.0 0
111-3080-0	SCREW,4AB,1/2,PHP,B.Z.
	13.000000 EP 0 0 0.0 0
111-6001-0	NUT,4-40,KEP SMALL
	1.000000 EP 0 0 0.0 0
111-7011-0	WASHER,#4,SPLIT
	2.000000 EP 0 0 0.0 0
111-8061-0	TR-BOLT,4-40,3/8,PHP,CAD
	6.000000 EP 0 0 0.0 0
111-8101-0	TR-BOLT,4-40,5/8,PHP,CAD
	6.000000 EP 0 0 0.0 0
112-0040-0	BOLT,6-32,1/4,PHP,ZINC
	32.000000 EP 0 0 0.0
112-0081-0	BOLT,6-32,1/2,PHP,CAD
	4.000000 EP 0 0 0.0 0
112-6001-0	NUT,6-32,KEP LARGE,CAD
	6.000000 EP 0 0 0.0 0
112-6015-0	STANDOFF,6-32X22/16,NYLON
	3.000000 EP 0 0 0.0
112-8040-0	TR-BOLT,6-32,1/4,PHP,B.Z.
	24.000000 EP 0 0 0.0 PP
112-8041-0	TR-BOLT,6-32,1/4",PHP,ZINC
	1.000000 EP 0 0 0.0
119-6000-0	NUT,M9X.75MM,PANEL ZNC
	1.000000 EP 0 0 0.0
119-7000-0	WASHER,M9,ZNC,FLAT
	1.000000 EP 0 0 0.0
150-0023-0	BAG,POLY 10 X 16 1 1/2 MILL
	2.000000 EP 0 0 0.0 0
150-0099-0	BAG,POLY 24"X24"X2MIL ANTISTATIC
	1.000000 EP 0 0 0.0 0
153-0000-0	TIE WRAP,BLACK
	1.000000 EP 0 0 0.0
153-0100-2	SAFTEY LABEL(RISK OF FIRE),ENGL/FREN
	1.000000 EP 0 0 0.0
153-0101-0	LABEL,SERIAL #,SIGNATURE 2.0

	1.000000 EP 0 0 0.0
153-0103-0	LABEL,CE,PRODUCT
	1.000000 EP 0 0 0.0
153-0104-0	LABEL,CE,OUTER PACKING
	1.000000 EP 0 0 0.0
160-0005-0	GROUNDING SAFETY SHEET
	1.000000 EP 0 0 0.0 0
HA080-0001-0	XFORMER,FM MATCHING,230V SIG 2.0
	1.000000 EP 0 0 0.0
HA130-0000-0	OVERLAY,SIG 2.0 REMOTE CONTROL OVERLAY
	1.000000 EP 0 0 0.0
HA132-0017-0	SIG 2.0,HEAT SINK
	1.000000 EP 0 0 0.0 00
HA132-0018-3	SIG 2.0 CHASSIS
	1.000000 EP 0 0 0.0 03
HA132-0019-0	SIG 2.0,TOP COVER
	1.000000 EP 0 0 0.0 00
HA132-0020-A	SIG 2.0 FRONT PANEL
	1.000000 EP 0 0 0.0 04
HA132-0021-A	LOGO,SIGNATURE SERIES,ACRYLIC
	1.000000 EP 0 0 0.0
HA132-0022-6	SIG 2.0,SUBCHASSIS
	1.000000 EP 0 0 0.0 06
HA132-0023-0	SIG 2.0,VOLUME MOUNTING BRACKET
	1.000000 EP 0 0 0.0 00
HA132-0024-1	SIG 2.0 SHIELD TRANSFORMER
	1.000000 EP 0 0 0.0 01
HA132-0025-0	SIG 2.0,HOUSING TRANSFORMER
	1.000000 EP 0 0 0.0 00
HA150-0002-A	SIG 2.0 CARTON
	1.000000 EP 0 0 0.0
HA151-0003-A	SIG 2.0 FOAM PACK
	1.000000 EP 0 0 0.0
HA151-0005-0	SIG 2.0,PAD,LARGE
	2.000000 EP 0 0 0.0
HA151-0006-0	SIG 2.0,PAD,SMALL
	2.000000 EP 0 0 0.0
HA153-0100-0	LABEL,TRANSFORMER,SIG 2.0
	2.000000 EP 0 0 0.0
HA153-0101-0	LABEL,REAR CHASSIS 230V,SIG 2.0
	1.000000 EP 0 0 0.0
HA153-0103-0	LABEL,UPC,230V,SIG 2.0
	2.000000 EP 0 0 0.0
HA153-0105-0	LABEL,FUSE RATING,SIG 2.0,230V
	1.000000 EP 0 0 0.0 A
HA160-0007-A	SIG 2.0/230V OWNER'S MANUAL
	1.000000 EP 0 0 0.0 A
HA202-0000-0	WIRE ASSY,26GA,YEL,17",11PIN
	1.000000 EP 0 0 0.0 00
HA202-0001-0	WIRE ASSY,26GA,BLU,3",3PIN
	2.000000 EP 0 0 0.0 00
HA202-0002-0	WIRE ASSY,26GA,ORG,17",9PIN
	1.000000 EP 0 0 0.0 00

HA202-0100-0	WIRE ASSY,22GA,GRN,5",5PIN
	1.000000 EP 0 0 0.0 00
HA202-0101-0	WIRE ASSY,22GA,BLK,12",5PIN
	1.000000 EP 0 0 0.0 00
HA202-0102-0	WIRE ASSY,22GA,BRN,12",5PIN
	1.000000 EP 0 0 0.0 00
HA202-0103-0	WIRE ASSY,22GA,RED,15",5PIN
	1.000000 EP 0 0 0.0 00
HA202-0104-0	WIRE ASSY,22GA,PUR,18",5PIN
	1.000000 EP 0 0 0.0 00
HA202-0105-0	WIRE ASSY,22GA,GRY,7",8PIN
	1.000000 EP 0 0 0.0 00
HA202-0106-0	WIRE ASSY,18GA,BLK,6"
	1.000000 EP 0 0 0.0 01
HA202-0107-0	WIRE ASSY,22GA,BLK,10,SPEAKER
	1.000000 EP 0 0 0.0
HA202-0300-0	WIRE ASSY,14GA,GRN,6"
	1.000000 EP 0 0 0.0 01
HA202-0301-0	WIRE ASSY,16GA,RED,8"
	2.000000 EP 0 0 0.0 00
HA202-0500-0	RIBBON ASSY,28GA,F-F,8",10PIN
	1.000000 EP 0 0 0.0 00
HA202-0501-0	RIBBON ASSY,28GA,F-F,9",16PIN
	1.000000 EP 0 0 0.0 00
HA202-0502-0	RIBBON ASSY,28GA,F-F,11",20PIN
	2.000000 EP 0 0 0.0 00
HA202-0503-0	RIBBON ASSY,28GA,F-F,5",20PIN
	1.000000 EP 0 0 0.0 00
HA202-0504-0	RIBBON ASSY,28GA,F-F,15",20PIN
	1.000000 EP 0 0 0.0 00
HA205-2000-0	SIG 2.0 AM ANTENNA LOOP
	1.000000 EP 0 0 0.0
HA205-2001-0	SIG 2.0 FM DIPOLE ANTENNA
	1.000000 EP 0 0 0.0
HA206-0006-1	SIG 2.0 POWER SUPPLY BOARD ASSY REV 01
	1.000000 EP 0 0 0.0 01
HA206-0011-2	SIG 2.0 VIDEO BOARD ASSY REV02
	1.000000 EP 0 0 0.0 02
HA206-0012-0	SIG 2.0 CPU BOARD ASSY
	1.000000 EP 0 0 0.0 00
HA206-0013-1	SIG 2.0 DSP BOARD ASSY REV 01
	1.000000 EP 0 0 0.0 01
HA206-0014-A	SIG 2.0 TUNER BOARD ASY EUR
	1.000000 EP 0 0 0.0 A
HA206-0015-3	SIG 2.0 AUDIO BOARD ASY,REV03
	1.000000 EP 0 0 0.0 03
HA206-0016-0	SIG 2.0 BUTTON LOGO PANEL BOARD ASSY
	1.000000 EP 0 0 0.0 00
	REF: the board cosists of 5 parts
	REF: HA206-0005-0 Pwr Switch Assy
	REF: HA206-0007-0 VFD/IR Assy
	REF: HA206-0008-0 Standby Assy
	REF: HA206-0009-0 Button logo Assy

	REF: HA206-0010-0 Rotary Encoder
HA304-0000-0	SIG 2.0 REMOTE CONTROL IR
	1.000000 EP 0 0 0.0

100 COMPONENTS PRINTED

ASM: HA206-0006-1 SIG 2.0 POWER SUPPLY BOARD ASSY REV 01 EA M

Gallien Part Number	Description
010-0002-0	2N3904 TRANS,NPN EA B 1.000000 EP 0 0 0.0 A REF: Q 202
010-0012-0	MPSA06 NPN 80V 500MA TO-92 EA B 1.000000 EP 0 0 0.0 0 A REF: Q 101
011-1117-0	TIP117 PNP 100V 2A TO-220 EA B 1.000000 EP 0 0 0.0 A REF: Q 203
014-0003-0	78L06,VOLTAGE REGULATOR,+6V,TO-92 EA B 1.000000 EP 0 0 0.0 A REF: U 205
014-1002-0	79L06,VOLTAGE REGULATOR,TO-92,-6V EA B 1.000000 EP 0 0 0.0 A REF: U 207
020-1121-0	DIODE RECT 3A 1N5402 EA B 8.000000 EP 0 0 0.0 A REF: D 203,204,205,206,209,210,211, REF: 212
020-2107-0	DIODE RECT 1A 1N4003 EA B 9.000000 EP 0 0 0.0 A REF: D 101,202,207,208,213,214,215, REF: 216,217
022-0070-0	MOV,RAD DISC,14MM,250V EA B 1.000000 EP 0 0 0.0 A REF: MOV 101
030-2104-0	CAP,CER,AX,104,10%,50V,X7R EA B 18.000000 EP 0 0 0.0 AI A REF: C 101,102,201,202,206,207,209 REF: 210,213,214,216,217,220,221,223 REF: 224,226,227
031-1476-0	CAP,ELEC,RAD,476,20%,25V EA B 7.000000 EP 0 0 0.0 A REF: C 203,208,211,215,222,228,229
031-2106-0	CAP,ELEC,RAD,106,-10%+50%,50V EA B 4.000000 EP 0 0 0.0 0 A REF: C 218,225,230,231
031-2338-0	CAP,ELEC,RAD,338,20%,35V EA B 4.000000 EP 0 0 0.0 A REF: C 204,205,212,219
032-7104-0	CAP,PE,104,20%,250V EA B 2.000000 EP 0 0 0.0 0 A REF: C 232,233
050-0000-0	RES,METAL WIRE,0 OHM,1/8W EA B 2.000000 EP 0 0 0.0 AI A REF: R 104,105
050-1003-0	RES,CARBON FILM,10K OHM,1/8W,5% EA B 3.000000 EP 0 0 0.0 AI A REF: R 102,203,205
050-2002-0	RES,CARBON FILM,2K OHM,1/8W,5% EA B

	2.000000 EP 0 0 0.0 A	
	REF: R 103,204	
053-8205-0	RES,CARBON FILM,8.2 M OHM,1/2W,5%	EA B
	1.000000 EP 0 0 0.0 A	
	REF: R 101	
057-3300-0	RES,WIRE WOUND,33 OHM,10W,5%	EA B
	2.000000 EP 0 0 0.0 A	
	REF: R 206,207	
081-0005-0	FERRITE BEAD,AX, TYPE39	EA B
	2.000000 EP 0 0 0.0 A	
	REF: FB 101,102	
084-0003-0	RELAY, PC NPSS TYPE 1,5V	EA B
	1.000000 EP 0 0 0.0 A	
	REF: K 101	
092-0024-0	FASTON,M,PC,.187"	EA B
	1.000000 EP 0 0 0.0 A	
	REF: J 101	
092-0066-0	FASTON,M,PC,.250"	EA B
	8.000000 EP 0 0 0.0 A	
	REF: J 102,103,104,105,106,107,201,	
	REF: 202	
093-0009-0	HDR,.1X5,VERT,MALE,LOCK	EA B
	7.000000 EP 0 0 0.0 A	
	REF: P 101,102,103,104,105,201,202	
094-0004-1	FUSE CLIP, 5MM PC MNT,111-501	EA B
	4.000000 EP 0 0 0.0 A	
153-0105-0	LABEL,BLANK,.9"X.25"	EA B
	1.000000 EP 0 0 0.0 A	
HA145-0006-0	SIG 2.0 POWER SUPPLY BOARD,REV 01	EA B
	1.000000 EP 0 0 0.0 01 A	

26 COMPONENTS PRINTED

1 ASSEMBLIES PRINTED

ASM: HA206-0011-2 SIG 2.0 VIDEO BOARD ASSY REV02 EA M

Gallien Part Number	Description
001-1030-1	TL072CP, LOW NOISE JFET OPAMP EA B
	2.000000 EP 0 0 0.0 A
	REF: U 502,602
002-0053-0	HC4053, ANALOG SWITCH TRPL, 2 TO 1 EA B
	4.000000 EP 0 0 0.0 A
	REF: U 401,402,503,701
002-0054-0	HC4052, ANALOG SWITCH DUAL 4 TO 1 EA B
	2.000000 EP 0 0 0.0 A
	REF: U 802,901
002-0055-0	HC4051, ANALOG SWITCH SNGL 8 TO 1 EA B
	2.000000 EP 0 0 0.0 A
	REF: U 301,302
003-0581-0	EL4581CS,VIDEO SYNC SEPARATOR EA B
	1.000000 EP 0 0 0.0 A
	REF: U 601
003-1075-0	MB90075,OSD,S-VIDEO EA B
	1.000000 EP 0 0 0.0 A
	REF: U 702
010-0002-0	2N3904 TRANS,NPN EA B
	5.000000 EP 0 0 0.0 A
	REF: Q 601,603,701,702.703
010-1000-0	2N3906 PNP 40V 100MA TO-92 EA B
	1.000000 EP 0 0 0.0 0 A
	REF: Q 602
010-1004-0	OPAMP,DUAL VIDEO,MC14576 EA B
	5.000000 EP 0 0 0.0 A
	REF: U 303,403,501,805,903
020-1000-0	1N4148 ,RECT-FAST,200MA,100V,4NS,DO-35 EA B
	1.000000 EP 0 0 0.0 AI A
	REF: D 701
024-0002-0	CRYSTAL, 14.31818 MHZ, HC49S EA B
	1.000000 EP 0 0 0.0 A
	REF: X 702
024-0003-0	CRYSTAL, 17.734475 MHZ, HC49S EA B
	1.000000 EP 0 0 0.0 A
	REF: X 701
030-2103-0	CAP,CER,AX,103,10%,50V,X7R EA B
	2.000000 EP 0 0 0.0 AI A
	REF: C 502,503
030-2104-1	CAP,CER AX,104,50V,20%,Z5U EA B
	3 7.000000 EP 0 0 0.0 A
	REF: C 150,151,153,154,304,306,313,
	REF: 315,401,402,405,506,508,511,512
	REF: 602,603,604,605,606,701,702,704
	REF: 705,706,713,811,813,815,816,818
	REF: 901,906,908,910,501,509
030-2270-0	CAP,CER AXIAL,27 PF,10%,50V,NPO EA B
	3.000000 EP 0 0 0.0 AI A
	REF: C 708,709,710
030-4101-0	CAP,CER AXIAL,101,5%,100 V,COG EA B

		1.000000	EP	0	0	0.0		A	
		REF: C 712							
030-4471-0		CAP,CER AXIAL,471,5%,100V,X7R						EA	B
		1.000000	EP	0	0	0.0		A	
		REF: C 601							
031-0106-1		CAP,ELEC,RAD,106,20%,25V,NP						EA	B
		4.000000	EP	0	0	0.0		A	
		REF: C 302,407,812,902							
031-1227-0		CAP,ELEC,RAD,227,-10%+50%,25V						EA	B
		2.000000	EP	0	0	0.0 0		A	
		REF: C 314,316							
031-2106-0		CAP,ELEC,RAD,106,-10%+50%,50V						EA	B
	1	5.000000	EP	0	0	0.0 0		A	
		REF: C 301,303,307,308,309,312,403							
		REF: 404,505,507,703,814,817,907,909							
036-2105-0		CAP,PE,RAD,105,5%,50V						EA	B
		3.000000	EP	0	0	0.0		A	
		REF: C 504,510,610							
050-0000-0		RES,METAL WIRE,0 OHM,1/8W						EA	B
		4.000000	EP	0	0	0.0	AI	A	
		REF: R 312,319,320,902							
050-0101-0		RES,CARBON FILM,10 OHM,1/8W,5%						EA	B
	1	2.000000	EP	0	0	0.0	AI	A	
		REF: R 308,311,404,406,502,504,506,							
		REF: 507,819,822,916,917							
050-1001-0		RES,CARBON FILM,100 OHM,1/8W,5%						EA	B
	1	5.000000	EP	0	0	0.0	AI	A	
		REF: R 101,102,103,104,307,313,314,							
		REF: 318,510,511,704,817,820,907,910							
050-2002-0		RES,CARBON FILM,2K OHM,1/8W,5%						EA	B
		1.000000	EP	0	0	0.0		A	
		REF: R 608							
050-2702-0		RES,CARBON FILM,2.7K OHM,1/8W,5%						EA	B
		1.000000	EP	0	0	0.0	AI	A	
		REF: R 612							
050-3305-0		RES,CARBON FILM,3.3M OHM,1/8W,5%						EA	B
		5.000000	EP	0	0	0.0		A	
		REF: R 512,513,836,837,918							
050-4701-0		RES,CARBON FILM,470 OHM,1/8W,5%						EA	B
		4.000000	EP	0	0	0.0	AI	A	
		REF: R 606,705,706,707							
050-6801-0		RES,CARBON FILM,680 OHM,1/8W,5%						EA	B
		1.000000	EP	0	0	0.0	AI	A	
		REF: R 601							
050-7500-0		RES,CARBON FILM,75 OHM,1/8W,5%						EA	B
	1	6.000000	EP	0	0	0.0		A	
		REF: R 301,302,303,304,305,306,309,							
		REF: 401,402,407,409,412,413,823,825							
		REF: 913							
060-1002-0		RES,METAL FILM,1.00K,1/8W,1%						EA	B
		6.000000	EP	0	0	0.0	AI	A	
		REF: R 610,903,904,905,906							
		REF: + Harman ECO # 973232							

060-1003-0 RES,METAL FILM,10.0K OHM,1/8W,1% EA B
1 2.000000 EP 0 0 0.0 AI A
REF: R 310,403,405,501,503,508,609,
REF: 613,702,821,818,908

060-1004-0 RES,METAL FILM,100K,1/8W,1% EA B
1.000000 EP 0 0 0.0 AI A
REF: R 605

060-1302-0 RES,METAL FILM,1.3 KOHM,1/8W,1% EA B
1.000000 EP 0 0 0.0 A
REF: R 604

060-3322-0 RES,METAL FILM, 3.32 K OHM,1/8W,1% EA B
2.000000 EP 0 0 0.0 A
REF: R 603,607

060-4992-0 RES,METAL FILM,4.99K OHM,1/8W,1% EA B
2.000000 EP 0 0 0.0 AI A
REF: R 505,509

060-6804-0 RES,METAL FILM,680K OHM,1/8W,1% EA B
1.000000 EP 0 0 0.0 A
REF: R 602

060-6812-0 RES,METAL FILM,6.81K OHM,1/8W,1% EA B
1.000000 EP 0 0 0.0 AI A
REF: R 611

071-0010-0 CAP,VAR,10PF EA B
1.000000 EP 0 0 0.0 A
REF: C 711

071-0030-0 CAP,VAR,30PF EA B
1.000000 EP 0 0 0.0 A
REF: C 715

081-0005-0 FERRITE BEAD,AX, TYPE39 EA B
6.000000 EP 0 0 0.0 A
REF: FB 301,401,402,803,804,901

081-0010-0 INDUCTOR,AX,HIQ,33UH EA B
1.000000 EP 0 0 0.0 A
REF: L 701

081-0103-0 EMI FILTER, RAD, 103 EA B
3.000000 EP 0 0 0.0 A
REF: FIL 701,702,703

092-0006-0 CON,2XDINX5PIN,F,PC,H,SHIELD EA B
2.000000 EP 0 0 0.0 A
REF: P 401,402

092-0007-2 JACK RCAX4 HORIZ GOLD YELLOW EA B
2.000000 EP 0 0 0.0 A
REF: J 301,302

093-0009-0 HDR,.1X5,VERT,MALE,LOCK EA B
1.000000 EP 0 0 0.0 A
REF: P 202

093-0022-0 HDR,.1X2,VERT,GOLD,N-LOCK EA B
2.000000 EP 0 0 0.0 A
REF: P 203,701

093-2000-0 HDR,.1X2X10,VERT,MALE,SHROUDED EA B
1.000000 EP 0 0 0.0 A
REF: P 201

100-0104-0 BRACKET,.25X.25,KEYSTONE,#621 EA B

	2.000000	EP	0	0	0.0		A
111-0041-0	BOLT,4-40,1/4,PHP,CAD					EA	B
	2.000000	EP	0	0	0.0 0		A
HA145-0011-2	SIG 2.0 VIDEO BOARD					EA	B
	1.000000	EP	0	0	0.0 02		A

51 COMPONENTS PRINTED

1 ASSEMBLIES PRINTED